Section 5—Final Environmental Impact Statement

APPENDIX M DRAFT STREAM ASSESSMENT REPORT

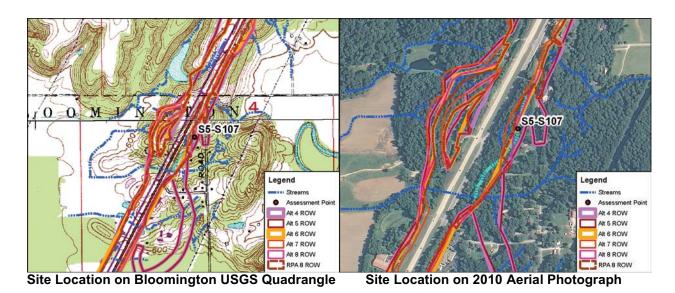
TECHNICAL REPORT APPENDICES

APPENDIX A Stream Impacts and

Stream Relocation Lengths by Alternative

APPENDIX B Stream Site Reports and

Data Sheets



Aquatic Resource: Stream USGS Quadrangle: Bloomington, Modesto

Stream Name: Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A 05120202010 Watershed: **OHWM Width:** 5.5 feet Channelized/Type: No/Natural OHWM Depth: 1.3 feet **Ephemeral USCOE Jurisdiction:** Stream Type: Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 33 Watershed Area: 0.02 sq mi
Legal Drain (Y/N): N Predominant Sub: Sand/silt

UTME: 1773491 ft **UTMN**: 14253639 ft

Stream S5-S107 - Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	1282	0.16	5.18
5	1282	0.16	5.23
6	765	0.10	3.48
7	520	0.07	2.36
8	942	0.12	4.02
RPA 8	576	0.07	3.24

Description of Potential Impact:

Impacts to S5-S107 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of sand and silt. There is a wide riparian buffer associated with this stream. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S107 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



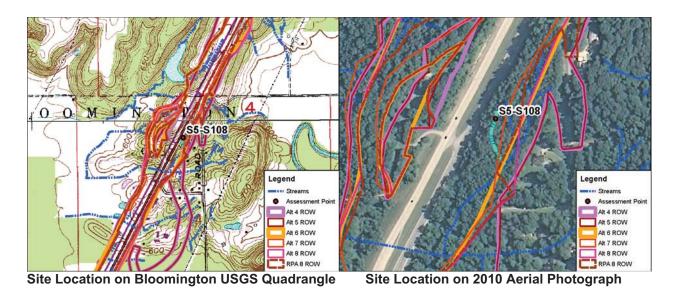
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S107 RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.24903 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.52993) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	13
Total of Percentages of Ongo (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	""
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3 RANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one hox):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/1.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) and River Left (L) and River Le	Width Max=30
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> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m None Pasture Row Completed Conservation Tillage Immature Forest, Shrub or Old Field One Pasture Row Completed Urban or Industrial	Width Max=30
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> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.70 AVERAGE BANKFULL WIDTH (meters): 1.70 AVERAGE BANKFULL WIDTH (meters): 1.70 AVERAGE BANKFULL WIDTH (meters): 1.70 1.70 AVERAGE BANKFULL WIDTH (meters): 1.70 1.70 AVERAGE BANKFULL WIDTH (meters): 1.70	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L)	Width Max=30 20 Top

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S107
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Beanblossom Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHEE	DAREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington / Modesto NRCS Soil Map F	Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Bloom	nington
MISCELLANEOUS	
	Quantity: 0.25
Base Flow Conditions? (Y/N): Date of last precipitation: 10/13/11	Quantity: U.25
Photograph Information:	
Elevated Turbidity? (Y/N): _ N Canopy (% open): _ 30%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. a	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
	conductivity (printed only)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
DIOTIC EVALUATION	
BIOTIC EVALUATION N	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optiona ID number. Include appropriate field data sheets from the Pri	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM F	REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation ar	nd a narrative description of the stream's location
See Stream Assessment Form	



See Stream Assessment Form S5-S107 for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.3 feet Channelized/Type: No/Natural **OHWM Depth:** 0.2 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes **Evaluation Score:** 30 Watershed Area: 0.01 sq mi

UTME: 1773319 ft **UTMN**: 14253637 ft

Ν

Legal Drain (Y/N):

Stream S5-S108 - Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	302	0.01	0.40
5	302	0.01	0.40
6	288	0.01	0.40
7	245	0.01	0.40
8	302	0.01	0.40
RPA 8	280	0.01	0.40

Predominant Sub:

Gravel/grand

Description of Potential Impact:

Impacts to S5-S108 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and sand. There is a wide riparian buffer associated with this stream. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S108 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

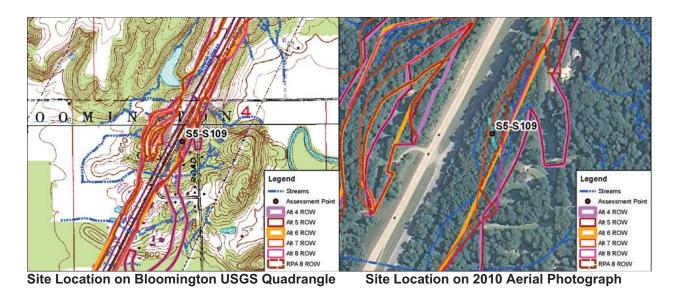


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S108 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.24903 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.53054) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to This	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 3% 2%	Substrate
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts] 40% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 5.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
3 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check <i>ONLY</i> one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / .2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
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> 4.0 meters (> 13') [30 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / .2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitte	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / .2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS No 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.50 Moist Channel, isolated pools, no flow (Intermitte Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' I .2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / .2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30 5

ADDITIONAL STREA	M INFORMATION (This Information Must Also	be Completed):		55-5108
QHEI PERF	ORMED? - Yes / No QHEI Score	(If Yes, Attac	th Completed QHEI Form	n)
DOWNSTR WWH Name: Bea CWH Name: EWH Name:	EAM DESIGNATED USE(S)		_ Distance from Evaluate Distance from Evaluate Distance from Evaluate	d Stream _
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE <u>EN</u>	ITIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Bloomington	NRCS Soil Map Pa	age: 13 NRCS Soil	Map Stream Order
County: Monroe	Towns	hip / City: Bloomir	ngton	
MISCELLA	NEOUS			
Base Flow Conditions	? (Y/N):_n Date of last precipitation:	05/11/06	Quantity: 0.60	
Photograph Information	on:			
Elevated Turbidity? (Y	7/N): N Canopy (% open): 20%	6		
Were samples collecte	ed for water chemistry? (Y/N): _N (Note lab	sample no. or id. ar	nd attach results) Lab Nu	mber:
Field Measures: Te	emp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmh	nos/cm)
Is the sampling reach	representative of the stream (Y/N) Y If not,	please explain:		
Additional comments/	description of pollution impacts:			
Flows only during st	orm events.			
Performed? (Y/N): Fish Observed? (Y/N) Frogs or Tadpoles Ob Comments Regarding	(If Yes, Record all observations. Vouche ID number. Include appropriate field data Voucher? (Y/N) Salamanders O served? (Y/N) Voucher? (Y/N) Aquat		nary Headwater Habitat As Voucher? (Y/N)	
	NG AND NARRATIVE DESCRIPTION ant landmarks and other features of interest for		-	
51 OW -	See Stream Assessment F			
FLOW	S5-S108 for site topogr		hotograph -	
	aerial photograph, and	resource b	TIOCOGLAPIIS	

Save as pdf





Bloomington

Aquatic Resource: Stream **USGS** Quadrangle: **Stream Name:** Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.2 feet Channelized/Type: No/Natural **OHWM Depth:** 0.2 feet Ephemeral **USCOE** Jurisdiction: **Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes **Evaluation Score:** 30 Watershed Area: 0.01 sq mi

Legal Drain (Y/N): Ν **Predominant Sub:** Gravel/sand

UTME: 1773392 ft **UTMN:** 14253644 ft

Stream S5-S109 - Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	247	0.01	0.60
5	247	0.01	0.60
6	184	0.01	0.60
7	43	0.01	0.52
8	229	0.01	0.60
RPA 8	179	0.01	0.60

Description of Potential Impact:

Impacts to S5-S109 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and sand. There is a wide riparian buffer associated with this stream. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S109 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



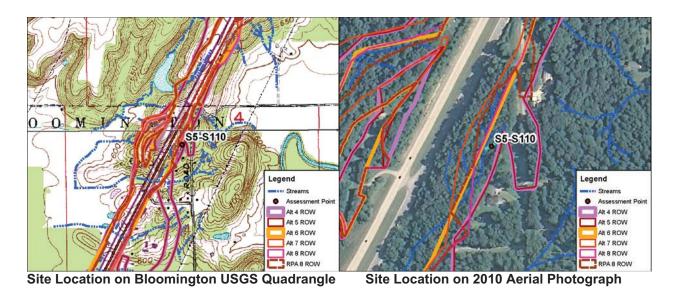
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S109 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.24905 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers (Long: -86.53028) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 3%	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt]	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0% ✓ SAND (<2 mm) [6 pts]	20
Total of Percentages of Percentage (B)	ALB
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
	l
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.50	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (= 3' 3") [5 pts] This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (= 3' 3") [5 pts] I make the completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (= 3' 3") [5 pts] I make the completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (= 3' 3") [5 pts] I make the completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (= 3' 3") [5 pts] I make the completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (= 3' 3") [5 pts] I most channel isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 3.0	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Mus	S5-S109
QHEI PERFORMED? - Yes ✓ No QHEI Score	
	(II res, Attach Completed QTELL Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek	Distance from Evaluated Stroom
	Distance from Evaluated Stream Distance from Evaluated Stream
CWH Name:EWH Name:	
	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington	NRCS Soil Map Page: 13 NRCS Soil Map Stream Order
B4	Township / City: Bloomington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_N Date of last precipitation	05/11/06 Quantity: 0.60
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open):	20%
Were samples collected for water chemistry? (Y/N): (No.	ote lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
,	oucher collections optional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate fie	eld data sheets from the Primary Headwater Habitat Assessment Manual)
` '—	ders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
	FION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of inter-	est for site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S109 for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream **USGS** Quadrangle: Bloomington **Stream Name:** Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 0.8 feet Channelized/Type: No/Natural **OHWM Depth:** 0.2 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score:29Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Gravel/sand

UTME: 1773536 ft **UTMN**: 14253699 ft

Stream S5-S110 - Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	86	0.01	0.00
5	96	0.01	0.00
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S110 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and sand. There is a wide riparian buffer where this stream crosses Alternatives 4 and 5. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S110 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

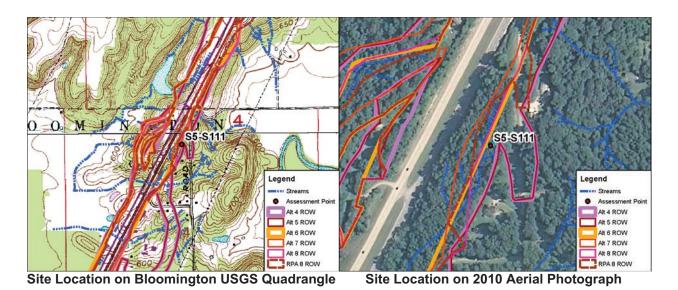


	THIEI GOOTE (sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER_S	S5-S110 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 120	LAT. 39.24920 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers		
		4!
NOTE: Complete All Items On This Forn	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECO	OVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of signification	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
	PERCENT TYPE PERCENT	Metri Point
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	0% SILT [3 pt] 0% 0% LEAF PACK/WOODY DEBRIS [3 pts] 10%	. 0
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 5%	Substra
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	50% MUCK [0 pts] 0%	19
SAND (<2 mm) [6 pts]	35% ARTIFICIAL [3 pts] 0%	19
Total of Percentages of	0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	Check 100%	АТБ
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the m	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool De
. ,	ad culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
		3
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 2	
3. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):	Bankfu
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	✓ ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW - 0.8' / .2'	AVERAGE BANKFULL WIDTH (meters): 0.50	5
	This information must also be completed	
RIPARIAN ZONE AND FLOODP		
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank) Wide >10m	L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage	
	Immature Forest Shrub or Old	
Moderate 5-10m	—— Field	
☐☐ Narrow <5m	Residential, Park, New Field Open Pasture, Row Cro	pp
None	Fenced Pasture Mining or Construction	
COMMENTS		-
FLOW REGIME (At Time of Eva	aluation) (Check ONLY one box):	
Stream Flowing `	Moist Channel, isolated pools, no flow (Intermittent)	ı
Subsurface flow with isolated poo	ols (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS_		-
SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check ONLY one box):	
None	1.0 2.0 3.0	
✓ 0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe	00 ft)

ADDITIONAL STRE	EAM INFORMATION (This Information Must Also	be Completed):	55-5110
QHEI PER	RFORMED? - Yes No QHEI Score	(If Yes, Attach	n Completed QHEI Form)
	TREAM DESIGNATED USE(S) Beanblossom Creek	_	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING	G: ATTACH COPIES OF MAPS, INCLUDING THE <u>EN</u>	TIRE WATERSHED A	REA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle I	Name: Bloomington	NRCS Soil Map Pag	ge: 13 NRCS Soil Map Stream Order
County: Monroe		hip / City:Bloomin	gton
MISCELL	ANEOUS		
Base Flow Condition	ns? (Y/N):_n Date of last precipitation:_	05/11/06	Quantity: 0.60
Photograph Informa	ation:		
Elevated Turbidity?	(Y/N): N Canopy (% open): 30%	0	
Were samples colle	ected for water chemistry? (Y/N): N (Note lab	sample no. or id. an	d attach results) Lab Number:
	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling read	ch representative of the stream (Y/N) If not,	please explain:	
Additional comment	ts/description of pollution impacts:		
Flows only during	storm events.		
Performed? (Y/N): _ Fish Observed? (Y/I Frogs or Tadpoles C Comments Regarding	ID number. Include appropriate field data (N) Voucher? (Y/N) Salamanders O Observed? (Y/N) Voucher? (Y/N) Aquat	sheets from the Prima	NOTE: all voucher samples must be labeled with the site ary Headwater Habitat Assessment Manual) Voucher? (Y/N) S Observed? (Y/N) Voucher? (Y/N)
	WING AND NARRATIVE DESCRIPTION ortant landmarks and other features of interest for		·
	See Stream Assessment Fo	rm	
FLOW	S5-S110 for site topogra	_	_
	aerial photograph, and r	esource pho	otographs

Save as pdf





Aquatic Resource: Stream **USGS** Quadrangle: Bloomington **Stream Name:** Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.1 feet Channelized/Type: No/ **OHWM Depth:** 0.1 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes 29

Evaluation Score:29Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Gravel/sand

UTME: 1773547 ft **UTMN**: 14253761 ft

Stream S5-S111 - Class I PHWH			
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (
4	103	0.01	0.08
5	103	0.01	0.08
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S111 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and sand. There is a wide riparian buffer where this stream crosses Alternatives 4 and 5. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S111 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

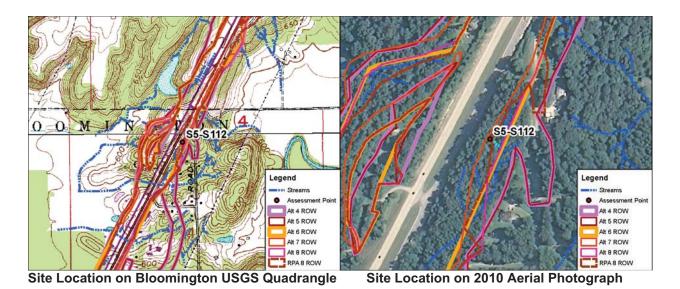


SITE NAME/LOCATION I-69 Section 5			
SITE NUMBER S5-S111 RIVER BASIN White River DRAINAGE AREA (mi	0.01		
LENGTH OF STREAM REACH (ft) 100 LAT. 39.24937 LONG. RIVER CODE RIVER MIL			
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52973) (Natural-Class I)			
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions			
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO F	RECOVERY		
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	sFi		
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric		
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points		
BOULDER (>256 mm) [16 pts]	Substrate		
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40		
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0%	19		
SAND (<2 mm) [6 pts] 40% ARTIFICIAL [3 pts] 0%			
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B		
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 4			
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth		
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30		
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]			
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	_□ 5		
COMMENTS MAXIMUM POOL DEPTH (centimeters): 1			
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull		
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width Max=30		
	Width		
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters):	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ₹ RIPARIAN WIDTH L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and R	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Pred	Width Max=30 5		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30 5		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Pred	Width Max=30 5		
> 4.0 meters (> 13') [30 pts]	Width Max=30 5		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field Floow Regime (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermit	Width Max=30 5		
> 4.0 meters (> 13') [30 pts]	Width Max=30 5		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Narrow <5 m Narrow <5 m Narrow <5 m None COMMENTS Fenced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Now water (Ephemeral) COMMENTS 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 1.0 m (<=3' 3") [5 pts] 2 1.0 m (<=3' 3") [5 pts] 2 1.0 m (<=3' 3") [5 pts] 3.0 m - 4' 8") [15 pts] 4 1.0 m (<=3' 3") [5 pts] 5 1.0 m (<=3' 3") [5 pts] 6 1.0 m (<=3' 3") [5 pts] 7 1.0 m (<=3' 3") [5 pts] 7 1.0 m (<=3' 3") [5 pts] 8 1.0 m (<=3' 3") [5 pts] 8 1.0 m (<=3' 3") [5 pts] 8 1.0 m (<=3' 3") [5 pts] 9	Width Max=30 5		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters): 0.5 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream? RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m	Width Max=30 5		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construct COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30 5		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.1' AVERAGE BANKFULL WIDTH (meters): 0.5 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream? RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m	Width Max=30 5 Crop ion ent)		

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed)	S5-S111 <u>E</u>
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, A	Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSH	IED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Ma	p Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Block	omington
MISCELLANEOUS	
Base Flow Conditions? (Y/N): N _ Date of last precipitation: 05/11/06	Quantity: 0.60
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or in	d. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
Flows only during storm events.	
ID number. Include appropriate field data sheets from the Voucher? (Y/N) Salamanders Observed? (Y/N)	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation	·
See Stream Assessment Form S5-S111 for site topographic map aerial photograph, and resource	

Save as pdf

Reset Form



Aquatic Resource: Stream USGS Quadrangle: Bloomington

Stream Name: Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A OHWM Width: 0.4 feet Watershed: 05120202010 Channelized/Type: No/Natural **OHWM Depth:** 0.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 29 Watershed Area: 0.01 sq mi

UTME: 1773460 ft **UTMN**: 14253820 ft

Ν

Legal Drain (Y/N):

Stream S5-S112 - Class I PHWH			
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (a			
4	94	0.01	0.10
5	94	0.01	0.10
6	88	0.01	0.10
7	0	0.00	0.10
8	81	0.01	0.10
RPA 8	26	0.01	0.10

Predominant Sub:

Gravel/sand

Description of Potential Impact:

Impacts to S5-S112 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and sand. There is a wide riparian buffer where the Alternatives cross this stream. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S112 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

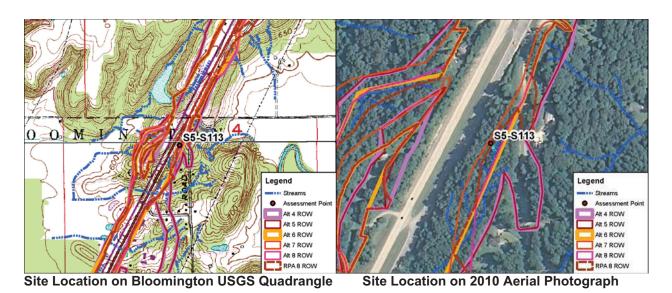


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S112 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 94 LAT. 39.24953 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.53003) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to This Form - Refer	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 5% 5% 5%	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0%	19
SAND (<2 mm) [6 pts] 40% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B) 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
5. BANK 1 OLE WIDTH (Measured as the average of 5-4 measurements) (Oneck ONE 1 one box).	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Mature Forest, Wetland Moderate 5-10m Noderate 5-10m V 1 Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5 m Residential, Park, New Field Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS None (Capture 13' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.50	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): Check ONLY one box): Check ONLY one box): Check ONLY one box): None	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] COMMENTS OHW - 0.4' / 0.2' AVERAGE BANKFULL WIDTH (meters): OHW - 0.4' / 0.2' AVERAGE BANKFULL WIDTH (meters): OHW - 0.4' / 0.2' AVERAGE BANKFULL WIDTH (meters): OLSO This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A given the strength of the	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	LΙΖ
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream]
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Bloomington NRCS Soil Map Page: 13 NRCS Soil Map Stream Order	
County: Monroe Township / City: Bloomington	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_N Date of last precipitation:_ 05/11/06 Quantity:_ 0.60	
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 20%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	=
Flows only during storm events.	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Comments Regarding Biology:	e site
	_
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location	1
See Stream Assessment Form	
S5-S112 for site topographic map,	
aerial photograph, and resource photographs	

Save as pdf





Aquatic Resource: Stream **USGS** Quadrangle: Bloomington

Stream Name: Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A OHWM Width: 0.4 feet Watershed: 05120202010 Channelized/Type: No/Natural **OHWM Depth:** 0.3 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 29 Watershed Area: 0.01 sq mi

Ν **UTME:** 1773522 ft **UTMN:** 14253927 ft

Stream S5-S113 - Class I PHWH			
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (a			
4	51	0.01	0.06
5	51	0.01	0.06
6	51	0.01	0.06
7	0	0.00	0.06
8	51	0.01	0.06
RPA 8	20	0.01	0.06

Predominant Sub:

Gravel/sand

Description of Potential Impact:

Legal Drain (Y/N):

Impacts to S5-S113 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and sand. There is a wide riparian buffer where the Alternatives cross this stream. The floodplain consists of the immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S113 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

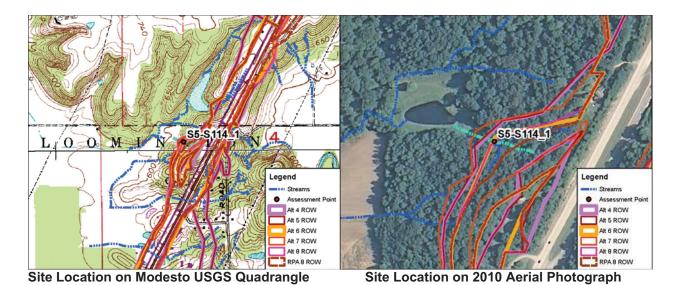


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S113 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 50 LAT. 39.24982 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers (Long: -86.52981) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0% ✓ SAND (<2 mm) [6 pts]	19
Substate Percentage	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
 > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 1	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.12	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.12	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY PLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### D.12 ### AVERAGE BANKFULL WIDTH (meters): ### D.12 ### D.15 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.12 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field PLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Stream Flowing Noist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream in the completed of the complete o	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.4' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S113
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHEE	AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington NRCS Soil Map F	Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Bloom	ington
	Quantity: 0.60 and attach results) Lab Number: Conductivity (µmhos/cm)
Additional comments/description of politition impacts	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Pri Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrat Comments Regarding Biology:	wary Headwater Habitat Assessment Manual) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM R	· —
See Stream Assessment Form S5-S113 for site topographic ma aerial photograph, and resource	_

Save as pdf

Reset Form



Aquatic Resource:StreamUSGS Quadrangle:ModestoStream Name:Unnamed Trib Beanblossom CkSection:4Quarter:NWTownship:T9NPage:P1WIDEM 303(d) Liet:N/A

Range: R1W IDEM 303(d) List: N/A OHWM Width: 1.2 feet Watershed: 05120202010 Channelized/Type: No/Natural **OHWM Depth:** 0.5 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 39 **Watershed Area**: 0.01 sq mi **Legal Drain (Y/N)**: N **Predominant Sub**: Gravel/bedrock

UTME: 1772827 ft **UTMN**: 14254164 ft

Stream S5-S114_1 - Class I PHWH			
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (a			
4	267	0.01	1.39
5	277	0.01	1.42
6	222	0.01	1.27
7	330	0.01	1.61
8	211	0.01	1.25
RPA 8	101	0.01	0.78

Description of Potential Impact:

Impacts to S5-S114_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and bedrock. There is a wide riparian buffer where the Alternatives cross this stream. The floodplain consists of immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S114_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

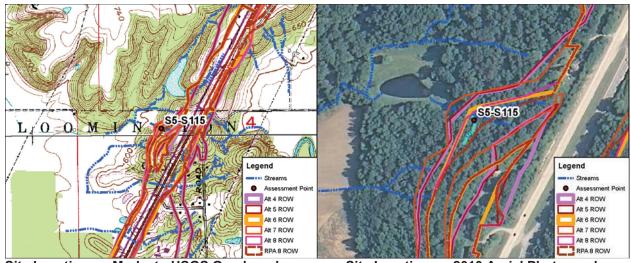


39

SITE NAME/LOCATION I-69 Section 5			
SITE NUMBER S5-S114_1 RIVER BASIN White River DRAINAGE AREA (mi²) 0.01			
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25048 LONG. RIVER CODE RIVER MILE			
DATE 05/11/06 SCORER J Meeker COMMENTS (Long: -86.53226) (Natural-Class I)			
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions		
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY		
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI		
TYPE PERCENT TYPE PERCENT	Metri		
BLDR SLABS [16 pts]	Points		
BEDROCK [16 pt] 30% FINE DETRITUS [3 pts]	Substrat		
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4		
✓ GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	29		
Total of Percentages of 30 00% (A) Substrate Percentage 100% (B)	A + B		
Bldr Slabs, Boulder, Cobble, Bedrock			
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep		
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3		
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]			
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5		
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4			
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful		
<pre></pre>	Width Max=30		
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]			
COMMENTS OHW - 1.2' / 0.5' AVERAGE BANKFULL WIDTH (meters): 0.60	5		
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆			
RIPARIAN WIDTH FLOODPLAIN QUALITY			
L R (Per Bank) L R (Most Predominant per Bank) L R V V Wide >10m V Mature Forest, Wetland Conservation Tillage			
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial			
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	pp		
None Fenced Pasture Mining or Construction			
COMMENTS COMMENTS	-		
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):			
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)			
COMMENTS Solution (Interstitution)	-		
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):			
None			
—			
STREAM GRADIENT ESTIMATE			
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)		

	S5-S114_1
ADDITIONAL STREAM INFORMATION (This Information Must Also be Comp	leted):
QHEI PERFORMED? - Yes V No QHEI Score (If	Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Beanblossom Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WAT	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS So	oil Map Page: 18 NRCS Soil Map Stream Order 1
County: Monroe Township / City:_	Bloomington
MISCELLANEOUS	
Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/0	6 Quantity: 0.60
Photograph Information: 66 Upstream / 67 Downstream / 68 Right bank / 69 L	eft bank
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
N	o. or id. and attach results) Lab Number:
	(S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please exp	
is the sampling reach representative of the stream (17/4) in not, please ex	Jiaiii.
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
N	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections	s optional. NOTE: all voucher samples must be labeled with the site m the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin	Y/N) Voucher? (Y/N)vertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	voltosiatos esservea: (TTT)
Seminana regarding Biology.	
DRAWING AND NARRATIVE DESCRIPTION OF STR	FAM REACH (This must be completed):
Include important landmarks and other features of interest for site evalu	· —
morade important fandmarks and outer readines of interest for site evalu	ation and a narrative description of the Sacam 3 location
See Stream Assessment Form	
S5-S114 1 for site topograph:	ic map.
aerial photograph, and resour	-
actiai phocograph, and resour	100 PilocoArabiio





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A OHWM Width: 0.6 feet Watershed: 05120202010 Channelized/Type: No/Natural **OHWM Depth:** 0.1 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes

Evaluation Type:HHEIIDEM Jurisdiction:YesEvaluation Score:39Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Gravel/bedrock

UTME: 1772850 ft **UTMN**: 14254135 ft

Stream S5-S115 - Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	177	0.01	0.60	
5	177	0.01	0.60	
6	177	0.01	0.49	
7	177	0.01	0.61	
8	177	0.01	0.49	
RPA 8	0	0.00	0.30	

Description of Potential Impact:

Impacts to S5-S115 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and bedrock. There is a wide riparian buffer where the Alternatives cross this stream. The floodplain consists of immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S115 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

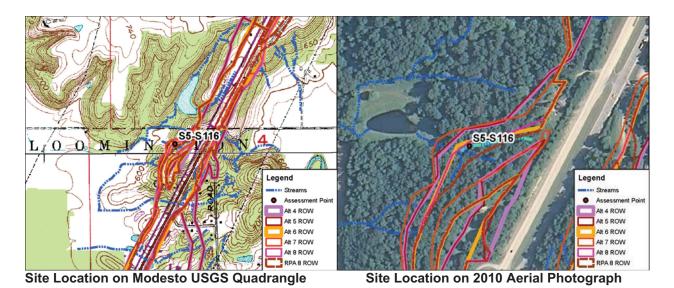


39

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S115 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 175 LAT. 39.25040 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.53218) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	29
Total of Percentages of 20 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	Α.Β
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 1	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 0.6' / 0.1' AVERAGE BANKFULL WIDTH (meters): 0.50	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Mature Forest, Wetland Orderstream Conservation Finage Urban or Industrial	
Field — Open Pasture Row Cro	nn
Narrow <5m Residential, Park, New Field D	P
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	,
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM	M INFORMATION (This Information I	Must Also be Complete	55-511!
QHEI PERF	ORMED? - Yes V No QHEI So	ore (If Yes,	Attach Completed QHEI Form)
DOWNSTRI WWH Name: Bea CWH Name: EWH Name:	EAM DESIGNATED USE(S) Inblossom Creek		Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDIN	G THE ENTIRE WATERS	HED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil M	ap Page: 18 NRCS Soil Map Stream Order
County: Monroe		Township / City: Blo	oomington
MISCELLAN Base Flow Conditions Photograph Information	? (Y/N):_N Date of last precipita		Quantity: 0.60
Field Measures: Te	Canopy (% open): ed for water chemistry? (Y/N): emp (°C) Dissolved Oxygen (note the stream (Y/N))	pH (S.U	id. and attach results) Lab Number: .) Conductivity (µmhos/cm)
Additional comments/o			
Performed? (Y/N): _N Fish Observed? (Y/N). Frogs or Tadpoles Obcomments Regarding	(If Yes, Record all observations ID number. Include appropriate Voucher? (Y/N) Salam served? (Y/N) Voucher? (Y/N)	e field data sheets from the	ional. NOTE: all voucher samples must be labeled with the site e Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) ebrates Observed? (Y/N) Voucher? (Y/N)
			M REACH (This <u>must</u> be completed): n and a narrative description of the stream's location
FLOW	See Stream Assessmer 35-S115 for site top aerial photograph, a	ographic map	

Reset Form



Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: Quarter: NW Township: T9N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: Watershed: 1.9 feet Channelized/Type: No/Natural **OHWM Depth:** 0.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes 39

Evaluation Score: 39 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Gravel/bedrock

UTME: 1772895 ft **UTMN**: 14254186 ft

	Stream S5	-S116 - Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	387	0.02	1.08
5	387	0.02	1.06
6	387	0.02	0.65
7	387	0.02	1.07
8	387	0.02	0.74
RPA 8	83	0.01	0.49

Description of Potential Impact:

Impacts to S5-S116 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and bedrock. There is a wide riparian buffer where the Alternatives cross this stream. The floodplain consists of immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S116 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



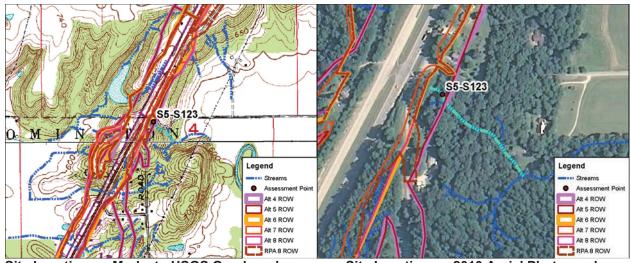
ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

39

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S116 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25055 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.53202) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDR SLABS [16 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 15%	Point
BEDROCK [16 pt] 30% FINE DETRITUS [3 pts]	Substrat Max = 4
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	IVIAX - 4
GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0% ARTIFICIAL [3 pts] 0%	29
Total of Percentages of 30 00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 20.5 - 30 cm [30 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.9' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.75	5
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	
Field — Open Pasture Pow Cro	an
Narrow <5m Residential, Park, New Field J	- P
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent))
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 3.0 0.5 1.5 2.5 3	
STREAM GRADIENT ESTIMATE	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMA	TION (This Information Mu	ust Also be Completed)) <u>:</u>	S5-S116
QHEI PERFORMED? -	Yes ✓ No QHEI Scor	re (If Yes, A	Attach Completed QHEI Form)
DOWNSTREAM DESIG	NATED USE(S)			
WWH Name: Beanblossom C	• • •		Distance from Evaluate	d Stream
CWH Name: _			Distance from Evaluated	l Stream _
EWH Name:			Distance from Evaluated	I Stream _
		THE ENTIRE WATERSH	IED AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name: Modes	to	NRCS Soil Ma	p Page: 18 NRCS Soil I	Map Stream Order
County: Monroe		Township / City: Bloc	omington	
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_N	Date of last precipitation	on:05/11/06	Quantity: 0.60	
Photograph Information:				
Elevated Turbidity? (Y/N): N	Canopy (% open):	30%		
Were samples collected for water	chemistry? (Y/N): N	Note lab sample no. or i	d. and attach results) Lab Nur	mber:
Field Measures: Temp (°C)	Dissolved Oxygen (mg	pH (S.U.)	Conductivity (µmh	os/cm)
Is the sampling reach representative	ve of the stream (Y/N)	If not, please explain:_		
Additional comments/description o	f pollution impacts:			
BIOTIC EVALUATION				
, , ,		· ·	nal. NOTE: all voucher sample Primary Headwater Habitat Ass	
Fish Observed? (Y/N) Vo Frogs or Tadpoles Observed? (Y/N	` ~	nders Observed? (Y/N)_ Aquatic Macroinverteb	Voucher? (Y/N)	Voucher? (Y/N)
Comments Regarding Biology:				
DRAWING AND	NARRATIVE DESCRIE	PTION OF STREAM	I REACH (This must be	e completed):
			and a narrative description	
See St:	ream Assessmen	t Form		
FLOW S5-S116	for site top	ographic map	,	
aerial	photograph, as	nd resource	photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto, Bloomington

Stream Name: Unnamed Trib Beanblossom Ck Section: Quarter: NE Township: T9N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: 3.5 feet Watershed: Channelized/Type: No/Natural **OHWM Depth:** 0.8 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 28 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Sand/silt

UTME: 1773881 ft **UTMN**: 14254409 ft

	Stream S5	-S123 - Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	131	0.01	0.68
5	121	0.01	0.64
6	0	0.00	0.09
7	0	0.00	0.00
8	0	0.00	0.09
RPA 8	0	0.00	0.09

Description of Potential Impact:

Impacts to S5-S123 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate is predominately sand and silt. There is a wide riparian corridor on both banks where Alternatives 4 and 5 cross this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S123 are on the second page of this form.



Photograph Taken Upstream



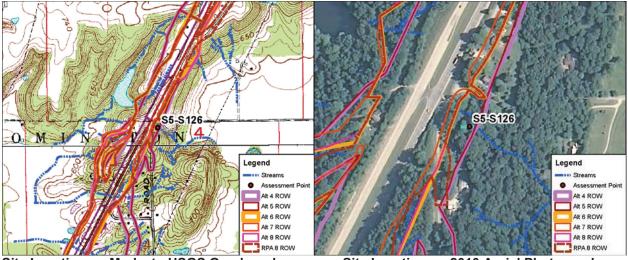


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S123 RIVER BASIN White River DRAINAGE AREA (mi²) 0.0	01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25114 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.52854) (Natural-Class 1)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc	ctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERE	VERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 20%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	13
SAND (<2 mm) [6 pts] 65% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
. , , , ,	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 3.5'/0.8' AVERAGE BANKFULL WIDTH (meters): 1.07	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
None Fenced Pasture Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None	
None	
☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0	ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Comp	S5-S123
QHEI PERFORMED? - Yes ✓ No QHEI Score (If	Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WAT	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bloomington / Modesto NRCS So	oil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City:	Bloomington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:10/13/1	1 Quantity: 0.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 15%	
Were samples collected for water chemistry? (Y/N): (Note lab sample n	o. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH	(S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please ex	plain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
ID number. Include appropriate field data sheets fro	s optional. NOTE: all voucher samples must be labeled with the site m the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin Comments Regarding Biology:	(Y/N) Voucher? (Y/N) Voucher? (Y/N) N Voucher? (Y/N) N
DRAWING AND NARRATIVE DESCRIPTION OF STR	FAM REACH (This must be completed):
Include important landmarks and other features of interest for site evalu	· - ,
See Stream Assessment Form	
S5-S123 for site topographic	_
aerial photograph, and resour	ce pnotograpns





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: Quarter: ΝE Township: T9N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: 0.6 feet Watershed: Channelized/Type: No/Natural **OHWM Depth:** 0.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 28 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Gravel/sand

UTME: 1773860 ft **UTMN**: 14254366 ft

	Stream S5	-S126 - Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	86	0.01	0.02
5	77	0.01	0.02
6	0	0.00	0.01
7	0	0.00	0.00
8	0	0.00	0.01
RPA 8	0	0.00	0.01

Description of Potential Impact:

Impacts to S5-S126 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and sand. There is a wide riparian buffer where Alternatives 4 and 5 cross this stream. The floodplain consists of immature forest on both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S126 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



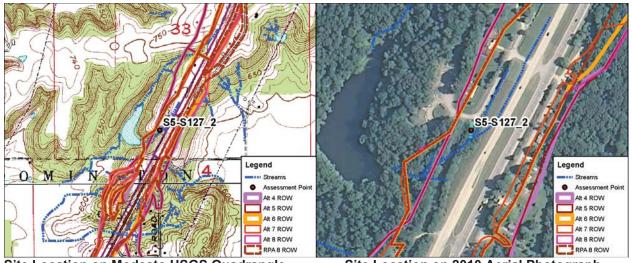
Primary Headwater Habitat Evaluation Form

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HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S126 DRAINAGE AREA (mi²) 0.01 SITE NUMBER 85 LAT. 39.25102 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.52861) (Natural-Class I) DATE 05/11/06 A Rogers SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 10% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 50% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 18 40% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 5 3 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.6' / 0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORI	MATION (This Information Must Al	so be Completed):		S5-S126
QHEI PERFORMED?			ach Completed QHEI Form)
DOWNSTREAM DES				,
WWH Name: Beanblossor			Distance from Evaluated	d Stream
CWH Name:			Distance from Evaluated	
EWH Name:			Distance from Evaluated	Stream _
MAPPING: ATTACH	COPIES OF MAPS, INCLUDING THE	ENTIRE WATERSHE	DAREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name: Mod	esto	NRCS Soil Map I	Page: 18 NRCS Soil N	Map Stream Order
County: Monroe	Tow	nship / City: Bloom	nington	
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_	Date of last precipitation:	05/11/06	Quantity: 0.60	
Photograph Information:				
Elevated Turbidity? (Y/N): _ N	Canopy (% open): 2	0%		
Were samples collected for water	er chemistry? (Y/N): N (Note	ab sample no. or id.	and attach results) Lab Nur	mber:
Field Measures: Temp (°C)		pH (S.U.)	Conductivity (µmh	os/cm)
Is the sampling reach represent	ative of the stream (Y/N)	ot, please explain:		
Additional comments/description	n of pollution impacts:			
· / — —	N (If Yes, Record all observations. Vouc ID number. Include appropriate field d	•	·	
	Voucher? (Y/N) Salamanders	Observed? (Y/N)	Voucher? (Y/N)ttes Observed? (Y/N)	Voucher? (Y/N)
Comments Regarding Biology:				
				
DRAWING ANI	NARRATIVE DESCRIPTIO	N OF STREAM I	REACH (This <u>must</u> be	e completed):
Include important landm	arks and other features of interest	for site evaluation a	nd a narrative description	of the stream's location
	Stream Assessment	Form		
FLOW S5-S	126 for site topog	raphic map	,	
aeri	al photograph, and	l resource	photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.0 feet Channelized/Type: Yes/Concrete Gutter **OHWM Depth:** 0.2 feet Stream Type: **USCOE Jurisdiction:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No 12

Evaluation Score:12Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1773741 ft **UTMN**: 14255106 ft

	Stream S5-S127	_2 – Modified Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	87	0.01	0.02
5	87	0.01	0.02
6	87	0.01	0.02
7	87	0.01	0.02
8	87	0.01	0.02
RPA 8	87	0.01	0.02

Description of Potential Impact:

Impacts to S5-S127_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter. There is a narrow riparian buffer associated with this artificial channel. The floodplain consists of immature forest adjacent to the right bank and new field on the left. Photographs taken upstream and downstream where these Alternatives cross S5-S127_2 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

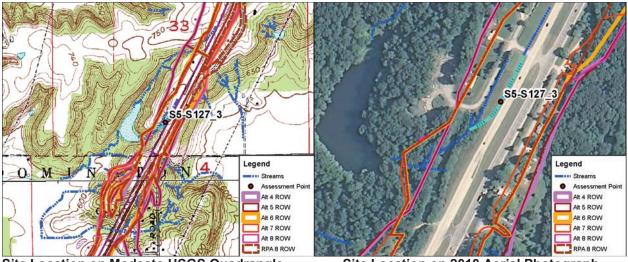


Primary Headwater Habitat Evaluation Form

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HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S127 2 DRAINAGE AREA (mi²) 0.01 SITE NUMBER 85 LAT. 39.25306 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.52902) (Concrete Gutter-Modified Class I) DATE **04/25/12** KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 0% 100% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 1 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.0'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 2.2 feet Channelized/Type: Yes/Concrete Gutter **OHWM Depth:** 0.1 feet Stream Type: **USCOE Jurisdiction:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No **Evaluation Score:** 12 Watershed Area: 0.02 sq mi **Predominant Sub:** Legal Drain (Y/N): Ν Artificial

UTME: 1773895 ft **UTMN**: 14255203 ft

	Stream S5-S127	_3 – Modified Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	486	0.02	0.00
5	486	0.02	0.00
6	486	0.02	0.00
7	486	0.02	0.00
8	486	0.02	0.00
RPA 8	486	0.02	0.00

Description of Potential Impact:

Impacts to S5-S127_3 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S127_3 are on the second page of this form.



Photograph Taken Upstream



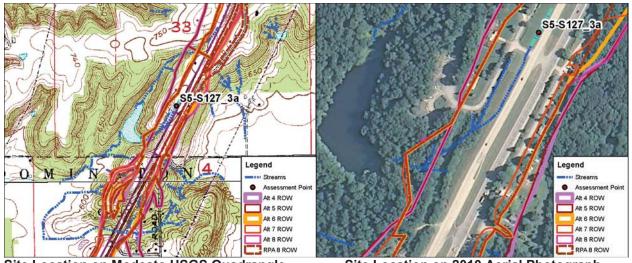
Photograph Taken Downstream



ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S127_3 RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25332 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.52847) (Concrete Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for In	structions
STREAM CHANNEL	ECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDR SLABS [16 pts] BU	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Total of Percentages of Occor (A) Substrate Percentage (B)	4 . 5
Bldr Slabs, Boulder, Cobble, Bedrock Check	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	<u> </u>
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
MAXIMUM FOOL DEFTH (centiliteters).	
	<u> </u>
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.70 This information pust also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Flood Resident (At Time of Evaluation) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Residential, Park, New Field Open Pasture, Row Narrow <5 m Residential, Park, New Field Open Pasture, Row Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermitted Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L.) and Right (R.) as looking downstream & succession of the part of the par	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.2'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L.) and Right (R.) as looking downstream & succession of the part of the par	Width Max=30 5 Crop on ent)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: Watershed: 1.2 feet Channelized/Type: Yes/Concrete Gutter **OHWM Depth:** 0.1 feet Stream Type: **USCOE Jurisdiction:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No **Evaluation Score:** 12 Watershed Area: 0.02 sq mi **Predominant Sub:** Legal Drain (Y/N): Ν Artificial

UTME: 1771080 ft **UTMN**: 14255564 ft

Stream S5-S127_3a – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	226	0.01	0.00	
5	226	0.01	0.00	
6	226	0.01	0.00	
7	226	0.01	0.00	
8	226	0.01	0.00	
RPA 8	226	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S127_3a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S127_3a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



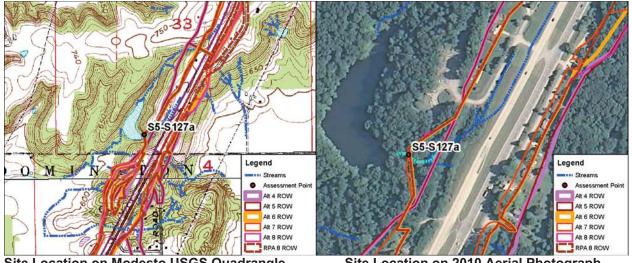
ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NUMBER S5-S127 3a RIVER BASIN White River DRAINAGE AREA (m²) 0.02	SITE MUMBER \$5-8127_34 RAVER BASIN White River RIVER CODE RIVER MILE	SITE NAME/LOCATION I-69 Section 5	
LENGTH OF STREAM REACH (fig. 200 LAT. 39.25431 LONG. RIVER CODE RIVER MILE DATE (94/25/12 SCORER KSS/DEW COMMENTS (LOng: -86.52781) (Concrete Gutter-Modified Class I) NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NONE: A STREAM CHANNEL NONE: A STREAM CHANNEL RECOVERING RECOVERING RECOVERY (Mix of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes (Mix of 32). Add total number of significant substrate bypes found (Max of 8). Final metric score is sum of boxes A 8 B. PERCENT TYPE BLDR SLABS (16 pts) 0%	ENGTH OF STREAM REACH (N) 200 LAT, 39.25431 LONG: RIVER RODE RIVER MILE LOT CAMBERTS CONCRETE GUITER MODIFIED SCORER KSS/DEW COMMENTS CLong: -66.52781) (Concrete Guiter-Modified Class LONG: SCORER CAMBERT COMMENTS CLORES -66.52781) (Concrete Guiter-Modified Class LONG: SCORER CAMBERT COMMENTS CLORES -66.52781) (Concrete Guiter-Modified Class LONG: RIVER ADDITIONS: CLORES -66.52781) (Concrete Guiter-Modified Class LONG: RIVER ADDITIONS: CLORES - COMMENTS CLORES -		.02
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL	NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL	200	
STREAM CHANNEL MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. B. Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes A & B. B. Max of 8). Final metric score is sum of boxes. Final metric score is sum of boxes. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Final metric score is sum of boxes. Final Dox of 8. Fi	STREAM CHANNEL MONE / NATURAL CHANNEL RECOVERED RECOVERING RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes. A & 8. B (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes. A & 8. B (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes. A & 8. B (Max of 32). Add (Max o	DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.52781) (Concrete Gutter-Modified Cla	ss I)
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Max of 32), Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric	Max of 32, Add total number of significant substrate types found (Max of 8), Final metric score is sum of boxes A & B. Metric Form 16 pts Dept. Dept		OVERY
Metrit Points SLDR SLABS 16 pts 95%	Metric Points SILT [3 pt]	· · · · · · · · · · · · · · · · · · ·	HHE
BOULDER (>256 mm) [16 pts]	SOULDER (2-256 mm) (16 pts 0%	TYPE PERCENT TYPE PERCENT	
BEDROCK 16 pt]	BEDROCK [16 pt]		Politic
COBBLE (65-256 mm) 12 pts 0%	COBBLE (65-256 mm) [2 pts] 05%		
SAND (<2 mm) [6 jsts] 0% 7	SAND (<2 mm) [6 pts] 0% 1/2 ARTIFICIAL [3 pts] 100%	00 200 mm) [12 pto]	Wax - 4
Total of Percentages of Bildr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 22. 5 30 cm [30 pts]	Total of Percentages of Bildr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culvers or storm water pipes) (Check ONLY one box): 22.5 - 30 cm] 30 pts]	Grove (2-04 min) [5 pts]	7
Bid' Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check CONLY One box): > 30 centimeters [20 pts] > 22. 5 - 30 cm [30 pts] > 10 - 22.5 - 30 cm [30 pts] > 10 - 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 4	Bild' Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 3.0 centimeters [20 pts] > 10 - 22.5 cm [25 pts] COMMENTS 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13) [30 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as looking downstream: (A) RIPARIAN WIDTH (NOTE: River Left (L) and Right (R) as	Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] NO WATER OR MOIST CHANNEL [0 pts] NO WATER OR MOIST CHANNEL [0 pts] OOMMENTS	evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 3	Bldr Slabs, Boulder, Cobble, Bedrock	
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] NO WATER OR MOIST CHANNEL [0 pts] NO WATER OR MOIST CHANNEL [0 pts] OOMMENTS	evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 3	2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
22.5 - 30 cm 30 pts	22.5 - 30 cm [30 pts]	evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	COMMENTS BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Welland Moderate 5-10m Mature Forest, Welland Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS SITEAM REGIME (At Time of Evaluation) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 2.1 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		
BankFull width (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.1' AVERAGE BANKFULL WIDTH (meters): O.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13) [30 pts] > 4.0 meters (> 13) [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.1' AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY %NOTE: River Left (L) and Right (R) as looking downstream % RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Mature Forest, Shrub or Old Immature	> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow < 5m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 (Check ONLY one box): None	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.1' AVERAGE BANKFULL WIDTH (meters): OHW 1.2'/0.1' AVE	COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
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Moderate 5-10m	Moderate 5-10m Immature Forest, Shrub or Old Immature Fore		
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 None 1.5 3.0 STREAM GRADIENT ESTIMATE	Immature Forest, Shrub or Old	
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FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 0.5 STREAM GRADIENT ESTIMATE	Narrow <5m Residential, Park, New Field J	۳
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SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 0.5 STREAM GRADIENT ESTIMATE	Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	ı
☑ None ☐ 1.0 ☐ 2.0 ☐ 3.0	None	Education flow with isolated pools (interstitial)	-
	0.5		
STREAM GRADIENT ESTIMATE			
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)	rat (0.5 to 100 tt) rat to injouenate injouenate (2 π/100 π) injouenate to Severe Severe (10 ft/100 ft)	STREAM GRADIENT ESTIMATE	

FLOW -

S5-S127 3a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: 3.1 feet Watershed: 05120202010 Channelized/Type: No/Natural **OHWM Depth:** 0.5 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** Watershed Area: 0.02 sq mi 51 **Predominant Sub:** Gravel/boulders Legal Drain (Y/N): Ν

UTME: 1773393 ft **UTMN:** 14254905 ft

Stream S5-S127a – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	0	0.00	0.19	
5	0	0.00	0.19	
6	173	0.01	0.74	
7	186	0.01	0.81	
8	173	0.01	0.74	
RPA 8	173	0.01	0.74	

Description of Potential Impact:

Impacts to S5-S127a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and boulders. This stream feed into a pond. There is a wide riparian corridor along both banks of this stream. The floodplain consists of mature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S127a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

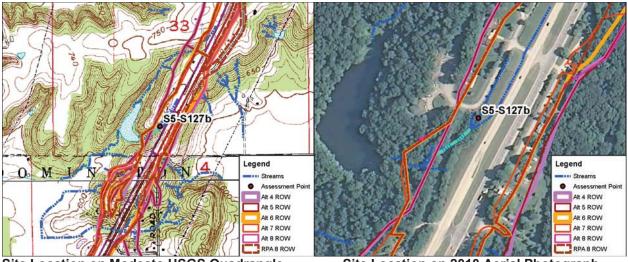


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S127a RIVER BASIN White River DRAINAGE AREA (mi²)	.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25251 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.53025) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] O%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 15% LEAF PACK/WOODY DEBRIS [3 pts] 10% 5% 5%	Substrat
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 10% ARTIFICIAL [3 pts] 0%	31
Orato (*2 min) [o pto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 25 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	15
	13
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 3.1' / 0.5' AVERAGE BANKFULL WIDTH (meters): 0.95	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m ✓ ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Field Field Urban or industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	pp
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	•
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 >3 1.5 2.5 3	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	

ADDITIONAL STREAM II	NFORMATION (This Information Must Also	be Completed):		S5-S127a
QHEI PERFOR	MED? - Yes / No QHEI Score	(If Yes, Atta	ich Completed QHEI Forr	m)
DOWNSTREAD WWH Name: Beanb CWH Name: EWH Name:	M DESIGNATED USE(S) lossom Creek		_ Distance from Evaluate _ Distance from Evaluate _ Distance from Evaluate	ed Stream
MAPPING: ATT	TACH COPIES OF MAPS, INCLUDING THE EN	ITIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name	Modesto	NRCS Soil Map P	age: 13 NRCS Soil	Map Stream Order 1
County: Monroe	Towns	ship / City: Washir	ngton	
MISCELLANEO Base Flow Conditions? (Y		05/11/06	Quantity: 0.60	
Photograph Information:	57 Upstream / 58 Downstream / 59 Right I	3ank / 60 Left Bank	k	
Elevated Turbidity? (Y/N)	N Canopy (% open): 25%	6		
Were samples collected f	or water chemistry? (Y/N): (Note lab	sample no. or id. a	and attach results) Lab Nu	umber:
	Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µm	hos/cm)
Is the sampling reach rep	resentative of the stream (Y/N) Y If not,	please explain:		
Additional comments/des	cription of pollution impacts:			
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Obsert Comments Regarding Bio	(If Yes, Record all observations. Vouche ID number. Include appropriate field data Voucher? (Y/N) Salamanders Oved? (Y/N) Voucher? (Y/N) Aquat	a sheets from the Prin		
	S AND NARRATIVE DESCRIPTION landmarks and other features of interest for See Stream Assessment	r site evaluation an		
FLOW •	S5-S127a for site topo	_	_	
	aerial photograph, and	resource	photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS Quadrangle:** Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.0 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes 0.02 sq mi **Evaluation Score:** Watershed Area: 12 Legal Drain (Y/N): Ν **Predominant Sub:** Artificial

UTME: 1773779 ft **UTMN**: 14255117 ft

Stream S5-S127b– Modified Class I PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres)					
4	226	0.01	0.95		
5	226	0.01	0.95		
6	239	0.01	1.15		
7	239	0.01	1.15		
8	239	0.01	1.15		
RPA 8	239	0.01	1.15		

Description of Potential Impact:

Impacts to S5-S127b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter beginning along Stone Belt Drive and feeding S5-S127a, 655 feet later. The riparian buffer associated with this artificial channel ranges from none (upper reach) to wide (lower reach). The floodplain habitat along the upper reach is all transportation, while the lower reach is immature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S127b are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

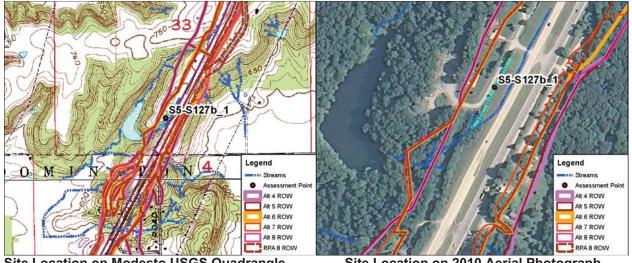


ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S127b RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25309 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.52889) (Concrete Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊥ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Total of Percentages of Occide (A) Substrate Percentage (B)	1
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	\parallel 0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
WAXINGWIPOOL DEFTIN (Centimeters).	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH EL R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row O Narrow <5m Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitte	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\$NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) Urban or Industrial Field Dynchard Flooder Pasture Forest, Wetland Dynchard Flooder Fenced Pasture Mining or Construction Narrow <5m Residential, Park, New Field Dynchard Pasture, Row Completed FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermitte Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Narrow <5m Residential, Park, New Field Open Pasture, Row C Field Narrow <5m Residential, Park, New Field Open Pasture, Row C Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row (Comments) FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Narrow <5m Residential, Park, New Field Open Pasture, Row C Field Narrow <5m Residential, Park, New Field Open Pasture, Row C Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30

ADDITIONAL STREAM	INFORMATION (This Information Must Also	o be Completed):		S5-S12/D
QHEI PERFO	RMED? - Yes V No QHEI Score	(If Yes, Attac	ch Completed QHEI Form	n)
DOWNSTREA WWH Name: Bean CWH Name:	AM DESIGNATED USE(S) blossom Creek		_ Distance from Evaluate _ Distance from Evaluate _ Distance from Evaluate	d Stream _
MAPPING: A	TTACH COPIES OF MAPS, INCLUDING THE <u>E</u> I	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Nam	me:_Modesto	NRCS Soil Map Pa	age: NRCS Soil	Map Stream Order
County: Monroe	Towns	ship / City: Washin	gton	
MISCELLANE	EOUS			
Base Flow Conditions?	(Y/N):_Y Date of last precipitation:_	04/24/12	Quantity: 0.15	
Photograph Information:				
Elevated Turbidity? (Y/N	N Canopy (% open): 100	%		
Were samples collected	for water chemistry? (Y/N): N (Note la	b sample no. or id. ar	nd attach results) Lab Nu	mber:
	np (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmh	nos/cm)
Is the sampling reach re	epresentative of the stream (Y/N) Y If not	, please explain:		
Additional comments/de	escription of pollution impacts:			
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Obsection Comments Regarding B	(If Yes, Record all observations. Voucher ID number. Include appropriate field date Voucher? (Y/N) N Salamanders Corved? (Y/N) N Aqua	a sheets from the Prim Observed? (Y/N)	•	
	IG AND NARRATIVE DESCRIPTION t landmarks and other features of interest fo		• —	. ,
	See Stream Assessment	Form		
FLOW -	S5-S127b for site topo	graphic maj	p,	
	aerial photograph, and	resource j	photographs	





Site Location on 2010 Aerial Photograph

Artificial

Aquatic Resource: Stream **USGS Quadrangle:** Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.0 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE** Jurisdiction: **Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No **Evaluation Score:** Watershed Area: 0.02 sq mi 12

UTME: 1773854 ft **UTMN**: 14255271 ft

Ν

Legal Drain (Y/N):

Stream S5-S127b_1 - Modified Class I PHWH						
Alternatives	Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres)					
4	415	0.01	0.00			
5	415	0.01	0.00			
6	415	0.01	0.00			
7	415	0.01	0.00			
8	415	0.01	0.00			
RPA 8	415	0.01	0.00			

Predominant Sub:

Description of Potential Impact:

Impacts to S5-S127b_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter. No riparian buffer is associated with this artificial channel. The floodplain habitat along this segment of concrete gutter is all transportation. Photographs taken upstream and downstream where these Alternatives cross S5-S127b_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

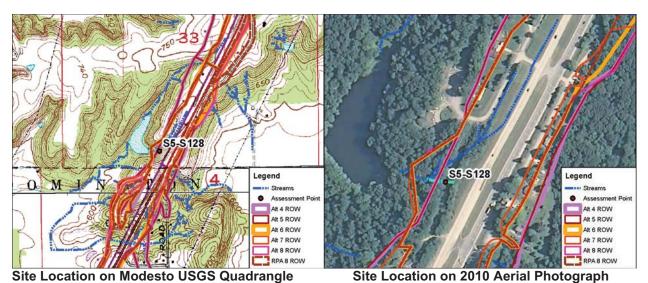
12

SITE NAME/LOCATION I-69 Section 5 S5-S127b_1 RIVER BASIN White River DRAINAGE AREA (mi²) 0.02 SITE NUMBER 200 LAT. **39.25342** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE **04/25/12** COMMENTS (Long: -86.5286) (Concrete Gutter-Modified Class I) KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 0% 100% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 1 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S127b
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach	Completed OHEL Form)
	Completed QREL Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek	Distance from Evaluated Stream
	Distance from Evaluated Stream
	istance from Evaluated Stream _
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AF	REA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page	: NRCS Soil Map Stream Order
County: Monroe Township / City: Washingto	on
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/24/12	Quantity: 0.15
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 100%	
Were samples collected for water chemistry? (Y/N): _N (Note lab sample no. or id. and	attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. N	OTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the Primar	y Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertebrates	Voucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:	N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REA	ACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a	narrative description of the stream's location
See Stream Assessment Form	
S5-S127b 1 for site topographic ma	ap,
aerial photograph, and resource ph	_

Save as pdf





Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 1.8 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 40 Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/sand

UTME: 1773570 ft **UTMN:** 14254853 ft

Ν

Legal Drain (Y/N):

Stream S5-S128 – Class II PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acre					
4	92	0.01	0.18		
5	92	0.01	0.18		
6	141	0.01	0.18		
7	141	0.01	0.18		
8	141	0.01	0.18		
RPA 8	141	0.01	0.18		

Description of Potential Impact:

Impacts to S5-S128 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S128 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



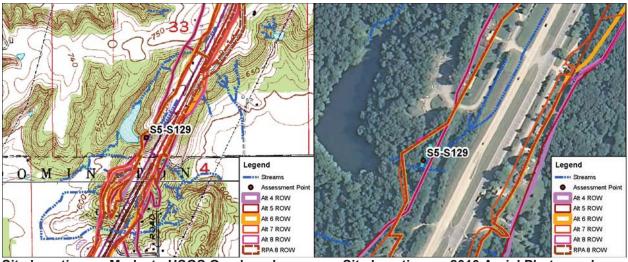
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S128 RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 140 LAT. 39.25237 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52963) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 5%	Substrate
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 40
✓ GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	20
Total of Percentages of 40,000/ (A) Substrate Percentage (B)	4.5
Bldr Slabs, Boulder, Cobble, Bedrock Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 30
> 22.5 - 30 cm [30 pts]	15
	13
COMMENTS MAXIMUM POOL DEPTH (centimeters): 6	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.8' / 0.5' AVERAGE BANKFULL WIDTH (meters): 0.90	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	рр
None Fenced Pasture Mining or Construction	
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 3.0 0.5 1.5 2.5 >3	
<u> </u>	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): N _ Date of last precipitation: 05/11/06 _ Quantity: 0.60
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 45%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the s ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S128 for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 1.5 feet Channelized/Type: No/Natural OHWM Depth: 0.1 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 39 Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/sand Legal Drain (Y/N): Ν

UTME: 1773506 ft **UTMN**: 14254904 ft

Stream S5-S129 – Class I PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acre					
4	0	0.00	0.00		
5	0	0.00	0.00		
6	124	0.01	0.01		
7	124	0.01	0.01		
8	124	0.01	0.01		
RPA 8	124	0.01	0.01		

Description of Potential Impact:

Impacts to S5-S129 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S129 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

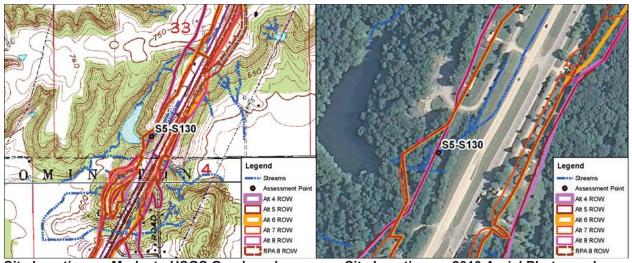


39

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S129 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 120 LAT. 39.25251 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52985) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 10%	Points
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 5%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	19
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 6	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.5' / 0.1' AVERAGE BANKFULL WIDTH (meters): 0.90	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	qu
None Fenced Pasture Mining or Construction	
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	_
SINUOSITY (Number of ben <u>ds</u> per 61 m (200 ft) of channel) <u>(Check ONLY one box):</u>	
None 1.0 2.0 3.0 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60 Photograph Information: Levated Turbidity? (Y/N): N Canopy (% open): 40%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the substitution of the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S129 for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: Watershed: 1.9 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 40 Watershed Area: 0.01 sq mi **Predominant Sub:** Sand/gravel Legal Drain (Y/N): Ν

UTME: 1773582 ft **UTMN**: 14254949 ft

Stream S5-S130 – Class II PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acre					
4	59	0.01	0.01		
5	58	0.01	0.01		
6	108	0.01	0.01		
7	108	0.01	0.01		
8	108	0.01	0.01		
RPA 8	108	0.01	0.01		

Description of Potential Impact:

Impacts to S5-S130 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S130 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

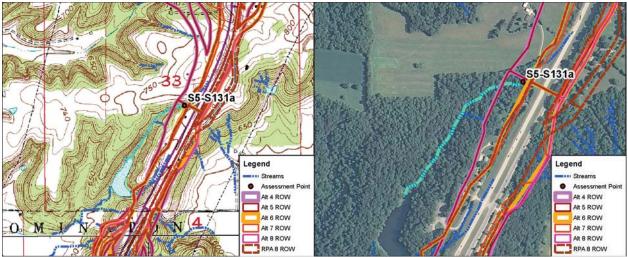


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S130 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 100 LAT. 39.25263 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52959) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT PERCENT	HHEI Metric
□ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 35% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts] 45% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 5.00% (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	45
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 7	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width Max=30
	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH ENDOTPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m No 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 1.00 L R (V (=3' 3") [5 pts] L R (NOST PEDION (=3' 3") [5 pts] L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Moderate 5-10m Moderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m None Pasture Pow Completed Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m None Pasture Pow Completed Urban or Industrial Field	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Comments None	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, Wetland Wide >10 mmature Forest, Shrub or Old Wide	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row Completed None Fenced Pasture Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitter Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m None Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Mide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.2' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m	Width Max=30 5

ADDITIONAL STREAM INF	FORMATION (This Information Must Also be Completed):	55-5130
QHEI PERFORM	IED? - Yes ✓ No QHEI Score (If Yes, Att	tach Completed QHEI Form)
WWH Name: Beanblo	DESIGNATED USE(S) pssom Creek	_ Distance from Evaluated Stream Distance from Evaluated Stream
EWH Name:		Distance from Evaluated Stream
MAPPING: ATTA	ACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:	Modesto NRCS Soil Map	Page: 13 NRCS Soil Map Stream Order
County: Monroe	Township / City:	nington
MISCELLANEOU	JS	
Base Flow Conditions? (Y/N	N):_N Date of last precipitation:_ 05/11/06	Quantity: 0.60
Photograph Information:		
Elevated Turbidity? (Y/N): _	N Canopy (% open): 40%	
Were samples collected for	r water chemistry? (Y/N): N (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp ((°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach repre	esentative of the stream (Y/N) If not, please explain:	
Additional comments/descri	ription of pollution impacts:	
BIOTIC EVALUA	<u>ATION</u>	
Performed? (Y/N): _N	(If Yes, Record all observations. Voucher collections options ID number. Include appropriate field data sheets from the P	al. NOTE: all voucher samples must be labeled with the site rimary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Frogs or Tadpoles Observe		Voucher? (Y/N) ates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biolo	ogy:	
DRAWING A	AND NARRATIVE DESCRIPTION OF STREAM	REACH (This <u>must</u> be completed):
Include important la	ndmarks and other features of interest for site evaluation a	and a narrative description of the stream's location
51 OW	e Stream Assessment Form	
55-	-S130 for site topographic map,	
aer	rial photograph, and resource p	photographs

Save as pdf

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SE Township: T10N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: Watershed: 4.0 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** Watershed Area: 0.03 sq mi 41 **Predominant Sub:** Sand/boulders Legal Drain (Y/N): Ν

UTME: 1774456 ft **UTMN**: 14256697 ft

Stream S5-S131a – Class II PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres					
4	478	0.04	1.81		
5	467	0.04	1.77		
6	3	0.01	0.17		
7	0	0.00	0.00		
8	0	0.00	0.04		
RPA 8	0	0.00	0.04		

Description of Potential Impact:

Impacts to S5-S131a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and boulders. There is a wide riparian corridor along both banks where Alternatives 4 and 5 cross this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S131a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



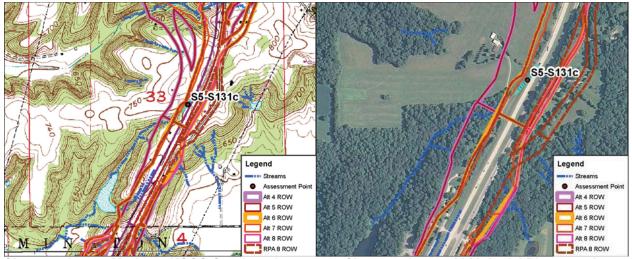
SITE NAME/LOCATION I-69 Section 5		<u> </u>		<u> </u>	
	-S131a RIVER B	ASIN White River	DRAIN	AGE AREA (mi²)	0.03
			R CODE	RIVER MILE	
DATE 10/17/11 SCORER DEW/KS	COMMENTS (-86.52647) (Natural-	Class II)		
NOTE: Complete All Items On This Form	- Refer to "Field Ev	aluation Manual for O	hio's PHWH S	treams" for Instr	ructions
STREAM CHANNEL NONE / NATE MODIFICATIONS:	URAL CHANNEL	RECOVERED RECO	VERING RE	CENT OR NO REC	OVERY
SUBSTRATE (Estimate percent of ever					
(Max of 32). Add total number of significa TYPE PE	• •	(Max of 8). Final metric s	core is sum of bo		HHE
BLDR SLABS [16 pts]	RCENT TYPE 0%	SILT [3 pt]		10%	Point
	35%	LEAF PACK/WOODY		0%	Substrat
☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	0%	FINE DETRITUS [3 pt CLAY or HARDPAN [0		0%	Max = 4
	5%	MUCK [0 pts]	ptj	0%	00
SAND (<2 mm) [6 pts]	50%	ARTIFICIAL [3 pts]		0%	26
Total of Percentages of 3	5.00% ^(A)	Substrate Percentage Check 100	0/0	(B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBST	RATE TYPES: 22	TOTAL NUMBER		TYPES: 4	
					<u></u>
Maximum Pool Depth (Measure the ma evaluation. Avoid plunge pools from road				at the time of	Pool Dep Max = 3
> 30 centimeters [20 pts]		> 5 cm - 10 cm [15 pt	5]		
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	✓	< 5 cm [5 pts] NO WATER OR MOIS	ST CHANNEL [0	pts]	0
COMMENTS			DL DEPTH (cent	imeters): 0	
3. BANK FULL WIDTH (Measured as the a	verage of 3-4 measur	ements) (Check > 1.0 m - 1.5 m (> 3' 3	ONLY one box):		Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]		≤ 1.0 m (<=3' 3") [5 pts			Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]					
COMMENTS OHW = 4'/0.5'		AVERAGE BAI	NKFULL WIDTH	(meters): 1.22	15
RIPARIAN ZONE AND FLOODPI		on <u>must</u> also be complet OTE: River Left (L) and R		ia downstream√s	
RIPARIAN WIDTH	FLOODPLAIN QUALI		agin (i t) as lookiii	e downstrodill M	
L R (Per Bank)		ominant per Bank)	L R		
Wide >10m		est, Wetland orest, Shrub or Old		nservation Tillage	
Moderate 5-10m	Field			an or Industrial	
Narrow <5m	Residential	Park, New Field	Оре	en Pasture, Row Cr	op
None	Fenced Pas	sture	Min	ing or Construction	ı
COMMENTS.					L
FLOW REGIME (At Time of Evalu	uation) (Check ONLY o		icalated scale	a flow (Intornaittant	`
Stream Flowing Subsurface flow with isolated pools	s (Interstitial)		, isolated pools, i o water (Ephem	no flow (Intermittent eral)	<i>)</i> -
COMMENTS_					L
SINUOSITY (Number of bends pe	er 61 m (200 ft) of chann	el) (Check ONLY one bo			
None 0.5	1.0 1.5	2.0		3.0 3	
	1.0	LJ 2.3		J	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft	Moderate to	Severe	Severe (10 ft/1	00 ft)
i lat to iniductate		, INIOGOTALE LO	2210.0		14

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S131a
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Beanblossom Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHEE	O AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map F	Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washi	ngton
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11	Quantity: 0.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 5%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. a	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional	I. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the Pri	
Fish Observed? (Y/N) N Salamanders Observed? (Y/N) N Salamanders Observed? (Y/N) N	Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) Aquatic Macroinvertebrate Comments Regarding Biology:	tes Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology.	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM F	REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation ar	· · · · · · · · · · · · · · · · · · ·
·	·
▲ See Stream Assessment Form	



S5-S131a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.0 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No **Evaluation Score:** Watershed Area: 0.03 sq mi 12

Legal Drain (Y/N): Ν **Predominant Sub:** Artificial

UTME: 1774842 ft **UTMN:** 14257040 ft

Stream S5-S131c – Modified Class I PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres					
4	414	0.01	0.00		
5	414	0.01	0.00		
6	414	0.01	0.00		
7	414	0.01	0.00		
8	414	0.01	0.00		
RPA 8	414	0.01	0.00		

Description of Potential Impact:

Impacts to S5-S131c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S131c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



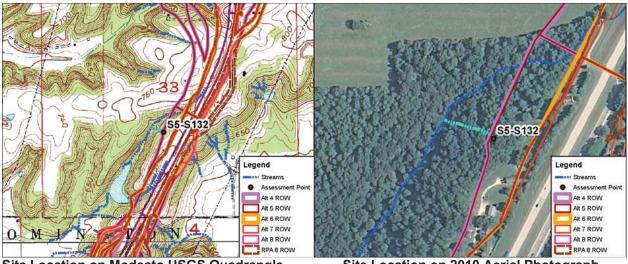
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S131c RIVER BASIN White River DRAINAGE AREA (mi²)	0.03
LENGTH OF STREAM REACH (ff) 200 LAT. 39.25836 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.52510) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt]	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	IVIAX - 4
☐ GRAVEL (2-64 mm) [9 pts]	7
Total of Percentages of 0.00% (A) Substrate Percentage 400% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 6 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
<pre>> 4.0 meters (> 13') [30 pts]</pre>	Width
2 1.0 m (-0 0) [0 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30	
	Max=30
COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30 This information <u>must</u> also be completed	Max=30
COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 0.30 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.30 L R (Most Predominant per Bank) L R Moderate 5-10m Moderate 5-10m Virban or Industrial	Max=30
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predomin	5 Sop
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	5 Sop
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODP	5 Sop

ADDITIONAL STREAM INFORMATION (This Information Must Als	S5-S131c o be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Town	ship / City:
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last precipitation:	04/24/12 Quantity: 0.15
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 100	9%
Were samples collected for water chemistry? (Y/N): (Note la	b sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not	i, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
·	er collections optional. NOTE: all voucher samples must be labeled with the site ta sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders (Observed? (Y/N) N Voucher? (Y/N) N Vouch
Comments Regarding Biology:	N voucier: (1714)
DRAWING AND NARRATIVE DESCRIPTION	I OF STREAM REACH (This must be completed):
	or site evaluation and a narrative description of the stream's location
•	,



See Stream Assessment Form S5-S131c for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 33 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: Watershed: 2.0 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 52 Watershed Area: 0.01 sq mi

Legal Drain (Y/N): N Predominant Sub: Gravel/boulder slabs

UTME: 1774079 ft **UTMN**: 14256274 ft

Stream S5-S132 – Class II PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acre					
4	30	0.01	0.47		
5	24	0.01	0.44		
6	0	0.00	0.00		
7	0	0.00	0.00		
8	0	0.00	0.00		
RPA 8	0	0.00	0.00		

Description of Potential Impact:

Impacts to S5-S132 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel, boulder slabs, sand, and leaf pack. There is a wide riparian corridor where Alternatives 4 and 5 cross this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S132 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



Primary Headwater Habitat Evaluation Form

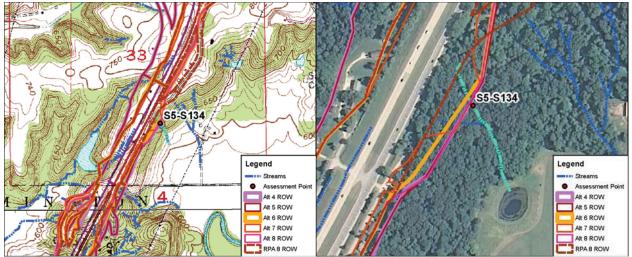
52

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S132 DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. **39.25626** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/11/06 COMMENTS (Long: -86.52780) (Natural-Class II) A Rogers SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE PERCENT PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 12% 5% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 10% 0% **Substrate** 0% BEDROCK [16 pt] 9% FINE DETRITUS [3 pts] Max = 409% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 45% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 32 10% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 30.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock 25 TOTAL NUMBER OF SUBSTRATE TYPES: | 7 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 15 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.90 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFO	ORMATION (This Information Must Also be Completed):	53-513 <u>-</u>	_
QHEI PERFORME	ED? - Yes V No QHEI Score (If Yes, At	ttach Completed QHEI Form)	
	ESIGNATED USE(S)		
WWH Name: Beanblos	som Creek	Distance from Evaluated Stream	
		Distance from Evaluated Stream	
EWH Name:		Distance from Evaluated Stream	
	CH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	ED AREA. CLEARLY MARK THE SITE LOCATION	_
USGS Quadrangle Name:			
County: Monroe	Township / City: Wash	hington	
MISCELLANEOUS			
Base Flow Conditions? (Y/N)	Date of last precipitation: 05/11/06	Quantity: 0.60	
Photograph Information:			_
Elevated Turbidity? (Y/N): _[N Canopy (% open): 25%		
Were samples collected for v	water chemistry? (Y/N): (Note lab sample no. or id	. and attach results) Lab Number:	_
Field Measures: Temp (°	C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)	_
Is the sampling reach repres	entative of the stream (Y/N) If not, please explain:_		-
Additional comments/descrip	otion of pollution impacts:		-
BIOTIC EVALUA	ΠΟΝ		
Performed? (Y/N): N	_ (If Yes, Record all observations. Voucher collections option	nal. NOTE: all voucher samples must be labeled with the s	ite
	ID number. Include appropriate field data sheets from the P	Primary Headwater Habitat Assessment Manual)	
Fish Observed? (Y/N)	Voucher? (Y/N) Salamanders Observed? (Y/N)	Voucher? (Y/N)	
Frogs or Tadpoles Observed	? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebr	rates Observed? (Y/N) Voucher? (Y/N)	
Comments Regarding Biolog	ıy:		
DRAWING A	AND NARRATIVE DESCRIPTION OF STREAM	REACH (This must be completed):	1
Include important lan	dmarks and other features of interest for site evaluation a	and a narrative description of the stream's location	
		·	
	ee Stream Assessment Form		
FLOW S!	5-S132 for site topographic ma	ap,	
	erial photograph, and resource	_	
a	or a priocograpii, and resource	5 PIIOCOZI APIIO	

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: UNT Beanblossom Ck

Quarter:SERange:R1WWatershed:05120202010Channelized/Type:No/NaturalStream Type:Ephemeral

Evaluation Score: 38 **Legal Drain (Y/N)**: N

Evaluation Type:

UTME: 1774673 ft **UTMN**: 14255794 ft

HHEI

USGS Quadrangle: Modesto Section: 33 Township: T10N IDEM 303(d) List: N/A OHWM Width: 3.0 feet OHWM Depth: 0.6 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Cobble/boulders

Stream S5-S134 – Class I PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acr					
4	223	0.02	1.30		
5	222	0.02	1.30		
6	190	0.01	1.15		
7	217	0.01	1.20		
8	217	0.01	1.28		
RPA 8	59	0.01	0.49		

Description of Potential Impact:

Impacts to S5-S134 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of cobble, boulders, and sand. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S134 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



38

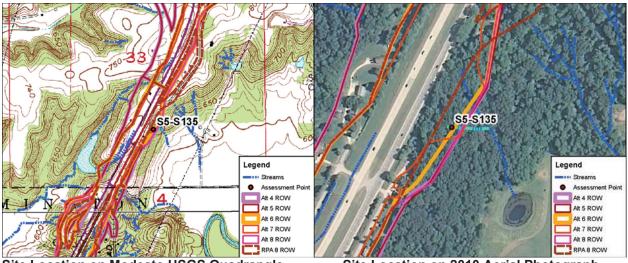
SITE NAME/LOCATION 11-03 SECTION 3	
SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S134 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25493 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.52571) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] Solution LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts] 40% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] O% ARTIFICIAL [3 pts] O% O% O% O% O% O% O% O% O% O	33
Title (December 2)	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 28 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 	
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide > 10m Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PROPERTY OF Bank) L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Noderate 5-10m Noderate 5-10m > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 Use 1.0 m (<=3' 3") [5 pts] AVERAGE B	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] ✓ ≤	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) No water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Vide >10 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] L R (NOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream Another L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Nature Forest, Wetland Moderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS Fenced Pasture Flood Residential, Park, New Field None COMMENTS Fenced Pasture Moist Channel, isolated pools, no flow (Intermitter Dry channel, no water (Ephemeral)) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Residential, Park, New Field Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS None water (Ephemeral) COMMENTS	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Vide >10 m V Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) COENTS (Check ONLY one box): None 1.0 CORMENTS 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (meters): 0.90 AVERAGE BANKFULL WIDTH (pers): 0.90 AVERAGE BANKFULL WIDTH (pe	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Mus	st Also be Completed):	S5-S134
QHEI PERFORMED? - Yes ✓ No QHEI Score		n Completed QHEI Form)
		,
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek		Distance from Evaluated Stream
CWH Name:		Distance from Evaluated Stream
EWH Name:		Distance from Evaluated Stream
		Distance from Evaluation engant
MAPPING: ATTACH COPIES OF MAPS, INCLUDING	THE <u>ENTIRE</u> WATERSHED A	REA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Pag	ge: NRCS Soil Map Stream Order
County: Monroe	Township / City: Washing	ton
MISCELLANEOUS		
Base Flow Conditions? (Y/N):Y Date of last precipitatio	10/13/11	Quantity: 0.25
Photograph Information:		
Elevated Turbidity? (Y/N): Canopy (% open):	0%	
Were samples collected for water chemistry? (Y/N): N (N	lote lab sample no. or id. and	d attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:	
is the sampling reach representative of the stream (1714)	п пот, рівазе вхріані	
Additional comments/description of pollution impacts:		
BIOTIC EVALUATION		
Performed? (Y/N): N (If Yes, Record all observations.	oucher collections optional.	NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate fi	eld data sheets from the Prima	ary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salaman	ders Observed? (Y/N) N	Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	Aquatic Macroinvertebrates	·
Comments Regarding Biology:		N
DRAWING AND NARRATIVE DESCRIP	TION OF STREAM RE	ACH (This <u>must</u> be completed):
Include important landmarks and other features of inte	est for site evaluation and	a narrative description of the stream's location



See Stream Assessment Form S5-S134 for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: SE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.1 feet Channelized/Type: No/Natural OHWM Depth: 0.3 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 35 Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/cobble Legal Drain (Y/N): Ν

UTME: 1774539 ft **UTMN**: 14255710 ft

Stream S5-S135 – Class I PHWH					
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acre					
4	83	0.01	0.63		
5	82	0.01	0.62		
6	39	0.01	0.49		
7	88	0.01	0.56		
8	81	0.01	0.63		
RPA 8	0	0.00	0.16		

Description of Potential Impact:

Impacts to S5-S135 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and cobble. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S135 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

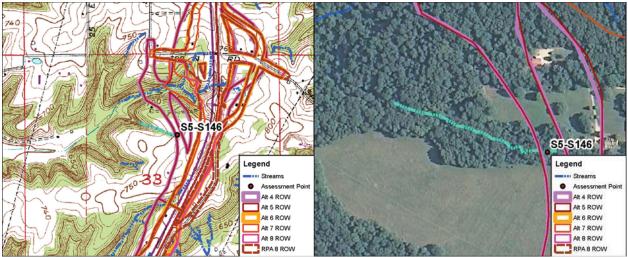


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S135 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.25471 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52619) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 20% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	25
Total of Percentages of 20 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	^.5
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3 RANK FILL WINTH (Massured as the average of 3-4 massurements) (Check ONLY one box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.60	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Mature Forest, Wetland Mature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.60 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m None Residential, Park, New Field PLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 1.0 m (<=3' 3") [5 pts] 2.0 m (<=3' 3") [5 pts] 2.0 m (<=3' 3") [5 pts] 3.0 m (<=3' 3") [5 pts] 4.0 m (<=3' 3") [5 pts] 5.1 m (3' 3") [5 pts] 6.1 m (<=3' 3") [5 pts] 7.0 m (<=3' 3") [5 pts] 7.0 m (<=3' 3") [5 pts] 7.0 m (<=3' 3") [5 pts] 8.1 m (<=3' 3") [5 pts] 8.1 m (<=3' 3") [5 pts] 9.1 m (<=3' 3") [5 pts] 9.1 m (<=3' 3") [5 pts] 1.0 m (<=3' 3") [5 p	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) V Wide > 10m (See 3' 3") [5 pts] L R (Most Predominant per Bank) V Wide > 10m (See 3' 3") [5 pts] L R (Most Predominant per Bank) V Wide > 10m (See 3' 3") [5 pts] L R (Most Predominant per Bank) V Wide > 10m (See 3' 3") [5 pts] D Mature Forest, Wetland Conservation Tillage Immature Forest, Wetland Narrow < 5m (See 3' 3") [5 pts] D Moderate 5-10m (See 3' 3") [5 pts] Narrow < 5m (See 3' 3") [5 pts] Narrow < 5m (See 3' 3") [5 pts] D Most Predominant per Lotter (L) and Right (R) as looking downstream (See 3' 3") [5 pts] D None (See 3' 3") [5 pts] None	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (≈ 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (× 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note and No	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (≈ 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (× 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note and No	Width Max=30 5

ADDITIONAL STREAM INFORM	IATION (This Information Must Als	so be Completed):		55-5135
QHEI PERFORMED?	- Yes ✓ No QHEI Score	(If Yes, Atta	ch Completed QHEI Form	1)
DOWNSTREAM DESI WWH Name: Beanblossom CWH Name: EWH Name:			_ Distance from Evaluate _ Distance from Evaluatec _ Distance from Evaluatec	d Stream _
MAPPING: ATTACH C	OPIES OF MAPS, INCLUDING THE E	ENTIRE WATERSHED	- AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name: Mode		NRCS Soil Map P	40	Map Stream Order
County: Monroe		nship / City: Washii	ngton	
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_N	Date of last precipitation:	05/11/06	Quantity: 0.60	
Photograph Information:				
Elevated Turbidity? (Y/N):	Canopy (% open): 20	0%		
Were samples collected for water	r chemistry? (Y/N): N (Note I	ab sample no. or id. a	and attach results) Lab Nu	mber:
Field Measures: Temp (°C)	Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmh	nos/cm)
Is the sampling reach representa	tive of the stream (Y/N) Y If no	t, please explain:		
Additional comments/description	of pollution impacts:			
Fish Observed? (Y/N) V Frogs or Tadpoles Observed? (Y Comments Regarding Biology:	f Yes, Record all observations. Vouch O number. Include appropriate field da Youcher? (Y/N) Salamanders	observed? (Y/N)	Voucher? (Y/N) es Observed? (Y/N)	voucher? (Y/N)
	rks and other features of interest f		-	
FLOW	Stream Assessment			
	S135 for site topo ial photograph, an	<u> </u>	_	

Save as pdf

Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 33 Quarter: SE Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 2.0 feet Channelized/Type: No/Natural OHWM Depth: 0.6 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 28 Watershed Area: 0.01 sq mi

Legal Drain (Y/N): N **Predominant Sub:** Boulder slabs/silt

UTME: 1774707 ft **UTMN**: 14258133 ft

Stream S5-S146 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	87	0.01	0.50
5	90	0.01	0.51
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S146 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of boulder slabs and silt. There is a wide riparian corridor along the left bank and a narrow buffer along the right bank of this stream. The floodplain consists of immature forest along the left bank and residential land along the right. Photographs taken upstream and downstream where the Alternatives cross S5-S146 are on the second page of this form



Photograph Taken Upstream



Photograph Taken Downstream



Primary Headwater Habitat Evaluation Form

28

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S146 DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. **39.26136** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.52555) (Natural-Class I) DATE 10/17/11 DEW/KSS SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE PERCENT PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 20% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 23 5% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 70.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock 19 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 4 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.6' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0

✓ Moderate to Severe

PHWH Form Page - 1

>3

Severe (10 ft/100 ft)

Flat (0.5 ft/100 ft)

0.5

STREAM GRADIENT ESTIMATE

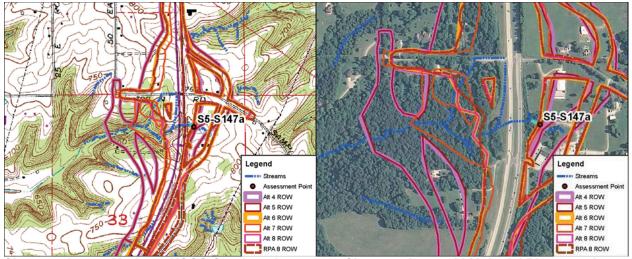
Flat to Moderate

1.5

Moderate (2 ft/100 ft)

ADDITIONAL STREA	M INFORMATION (This Information Must Also be Completed):
	FORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTR WWH Name: Bea CWH Name: EWH Name:	EAM DESIGNATED USE(S) anblossom Creek Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	
County: Monroe	Township / City: Washington
MISCELLA	NEOUS
Base Flow Conditions	?? (Y/N):_Y Date of last precipitation:10/13/11Quantity:0.25
Photograph Information	on:
Elevated Turbidity? (Y	(/N): N Canopy (% open): 60%
Were samples collect	ed for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (μmhos/cm)
	representative of the stream (Y/N) If not, please explain: description of pollution impacts:
BIOTIC EV	/ALUATION
Performed? (Y/N): Fish Observed? (Y/N) Frogs or Tadpoles Ob Comments Regarding	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) N
	ING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): ant landmarks and other features of interest for site evaluation and a narrative description of the stream's location
51 OW -	See Stream Assessment Form
FLOW	S5-S146 for site topographic map,
	aerial photograph, and resource photographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: Township: T10N NE Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 4.0 feet Channelized/Type: No/Natural OHWM Depth: 0.6 feet **USCOE Jurisdiction: Stream Type:** Intermittent Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** Watershed Area: 0.17 sq mi 51

Evaluation Score: 51 **Watershed Area:** 0.17 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Boulder slabs/cobble

UTME: 1775767 ft **UTMN**: 14259139 ft

Stream S5-S147a – Class II PHWH							
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres							
4	159	0.01	0.81				
5	137	0.01	0.76				
6	76	0.01	0.33				
7	121	0.01	0.48				
8	75	0.01	0.32				
RPA 8	76	0.01	0.33				

Description of Potential Impact:

Impacts to S5-S147a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of boulder slabs and cobble. There is a wide riparian corridor on the left bank and a moderately-wide riparian buffer along the right. The adjacent floodplain consists of a commercial use to the left and barren land to the right used as a spoil area. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S147a are on the second page of this form.



Photograph Taken Upstream



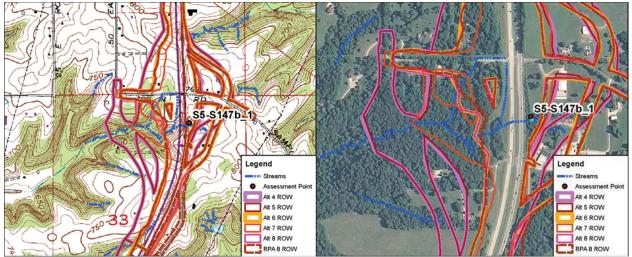
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S147a RIVER BASIN White River DRAINAGE AREA (mi²)).17
LENGTH OF STREAM REACH (ft) 190 LAT. 39.26411 LONG. RIVER CODE RIVER MILE	
DATE 04/23/12 SCORER KSS COMMENTS (Long: -86.52179) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
✓ □ BLDR SLABS [16 pts] 85% □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ O%	31
Total of Percentages of Substrate Percentage (B)	1
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	<u> </u>
> 22.5 - 30 cm [30 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW = 4.0'/0.6' AVERAGE BANKFULL WIDTH (meters): 1.22	15
This information must also be completed	*
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	
RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial Field	ор
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m PLOODPLAIN QUALITY L R (Most Predominant per Bank) D Conservation Tillage Urban or Industrial Open Pasture, Row Cr	•
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial	•
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None RIPARIAN WIDTH L R (Most Predominant per Bank) L R (Mo	•
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or	L
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cr Mining or Construction Check ONLY one box):	L
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old Immature Forest or Old Immature Forest or Old Immature Forest or O	L
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old	L
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Vetland	L
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Woderate 5-10m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None COMLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) None COMLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): None 3.0) (a)

ADDITIONAL STRI	EAM INFORMATION (This Information Must Also	be Completed):		55-514/a
QHEI PE	RFORMED? - Yes V No QHEI Score	(If Yes, Attach	Completed QHEI Form)	
	FREAM DESIGNATED USE(S) Seanblossom Creek		Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	2.04
MAPPIN	G: ATTACH COPIES OF MAPS, INCLUDING THE ENT	TIRE WATERSHED AF	REA. CLEARLY MARK THE SITE I	LOCATION
USGS Quadrangle	Name: Modesto	NRCS Soil Map Page	e: NRCS Soil Map Stream	m Order
County: Monroe	Townsh	nip / City: Washingt	on	
Base Flow Condition		04/19/12	Quantity: 0.20	
Photograph Information Elevated Turbidity?	N and			
Field Measures: Is the sampling rea	Temp (°C) Dissolved Oxygen (mg/l) hrepresentative of the stream (Y/N) If not, p	pH (S.U.)	attach results) Lab Number: Conductivity (µmhos/cm)	
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles Comments Regarding	ID number. Include appropriate field data solution. N) N Voucher? (Y/N) N Salamanders Ob Observed? (Y/N) N Voucher? (Y/N) Aquation.	sheets from the Primar sheets from the Primar N served? (Y/N) C Macroinvertebrates	ry Headwater Habitat Assessment M Voucher? (Y/N) N Observed? (Y/N) N	(Y/N) N
	see Stream Assessment For S5-S147a for site topogra aerial photograph, and re	site evaluation and a rm uphic map,	narrative description of the stre	•





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: Township: T10N NE Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 2.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type: IDEM Jurisdiction:** HHEI No **Evaluation Score:** Watershed Area: 12

Evaluation Score:12Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1775655 ft **UTMN**: 14259227 ft

Stream S5-S147b_1 – Modified Class I PHWH						
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Im						
4	95	0.01	0.11			
5	95	0.01	0.11			
6	95	0.01	0.11			
7	95	0.01	0.11			
8	95	0.01	0.11			
RPA 8	95	0.01	0.11			

Description of Potential Impact:

Impacts to S5-S147b_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter that flows into a culvert (S5-S147b). There is a wide riparian buffer associated with this artificial channel along both banks. The floodplain consists of the immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S147b_1 are on the second page of this form.



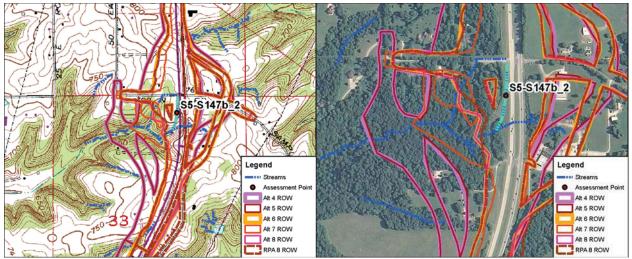
Photograph Taken Upstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S147b_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 95 LAT. 39.26435 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.52218) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt] BEDROCK [16 pt] D'A FINE DETRITUS [3 pts] 0%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	IVIAX - 4
GRAVEL (2-64 mm) [9 pts]	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 6 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (< 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Widx-50
	I .
COMMENTS OHW 2.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.67	5
COMMENTS OHW 2.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.67	5
This information must also be completed	5
	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5-10m This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5-10m Moderate 5-10m Urban or Industrial	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Conservation Flood Conservation Tillage	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cr	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Conservation Flood Conservation Tillage	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cr	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10m This information must also be completed NOTE: River Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking downstream None represents five Left (L) and Right (R) as looking to the None represents	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10m This information must also be completed NOTE: River Left (L) and Right (R) as looking downstream None repair Left (L) and Right (R) as looking to set the None repair Left (L) and Right (R) as looking to set the None repair Left (L) and Right (R) as looking to set the None repair Left (L) and Right (R) as looking to set the None repair Left (L) and Right (R) as looking to set the None repair Left (L) and Right (R) as looking to set the None repair Left (L) and Right (R) as looking t	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow < 5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2} \] RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$ Urban or Industrial Open Pasture, Row Cr Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature	rop t)

ADDITIONAL CERTAIN INFORMATION (This left working Must Alex be Com-	S5-S147b_1	
ADDITIONAL STREAM INFORMATION (This Information Must Also be Com		
QHEI PERFORMED? - Yes Mo QHEI Score (If	Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek	Distance from Evaluated Stream	
CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream	
EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WA	TERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Modesto NRCS S	oil Map Page: NRCS Soil Map Stream Order	
nty: Monroe Township / City: Washington		
MISCELLANEOUS		
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 04/24/	12 Quantity: 0.15	
Photograph Information:		
Elevated Turbidity? (Y/N): N Canopy (% open): 5%		
Were samples collected for water chemistry? (Y/N): N (Note lab sample	no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mq/l) ph	(S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please ex	plain:	
Additional comments/description of pollution impacts:		
Additional comments/acsorption of poliution impacts.		
BIOTIC EVALUATION		
· / =	is optional. NOTE: all voucher samples must be labeled with the site om the Primary Headwater Habitat Assessment Manual)	
Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi	(Y/N) Voucher? (Y/N) Voucher? (Y/N) N Voucher? (Y/N)	
Comments Regarding Biology:	, N	
DRAWING AND NARRATIVE DESCRIPTION OF ST	REAM REACH (This must be completed):	
Include important landmarks and other features of interest for site eval	uation and a narrative description of the stream's location	
See Stream Assessment Form		
S5-S147b_1 for site topographic		
aerial photograph, and resource	e pnotograpns	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.0 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No Watershed Area: 12

Evaluation Score:12Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1775394 ft **UTMN**: 14259451 ft

Stream S5-S147b_2 – Modified Class I PHWH							
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres							
4	708	0.02	0.48				
5	708	0.02	0.48				
6	708	0.02	0.48				
7	708	0.02	0.48				
8	708	0.02	0.48				
RPA 8	708	0.02	0.48				

Description of Potential Impact:

Impacts to S5-S147b_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S147b_2 are on the second page of this form.



Photograph Taken Upstream

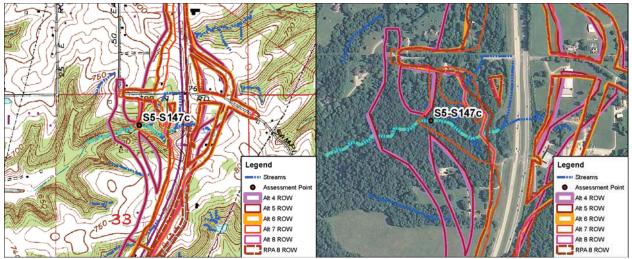


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S147b_2 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.26497 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.52310) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ 0% ☐ ☐ MUCK [0 pts] ☐ ☐ 100% ☐ 100% ☐ ☐ 100%	7
Total of Percentages of 0.00% (A) Substrate Percentage 400% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30	5
COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30	5
This information <u>must</u> also be completed	5
	5
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2} \] RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Immature Forest, Shrub or Old V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS This information must also be completed Most Cland Right (R) as looking downstream \$\frac{1}{2}\$ Urban or Industrial Open Pasture, Row Cr Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	rop
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Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 10.0 feet Channelized/Type: No/Natural OHWM Depth: 0.8 feet **USCOE Jurisdiction: Stream Type:** Intermittent Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes **Evaluation Score:** Watershed Area: 0.17 sq mi 66

Legal Drain (Y/N): N Predominant Sub: Bedrock/boulder slabs

UTME: 1774557 ft **UTMN**: 14259159 ft

Stream S5-S147c – Class III PHWH						
Alternatives	Riparian Impact (acres)					
4	1482	0.34	6.66			
5	1454	0.33	6.53			
6	218	0.05	0.88			
7	951	0.22	4.07			
8	217	0.05	0.89			
RPA 8	144	0.03	0.63			

Description of Potential Impact:

Impacts to S5-S147c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists primarily of bedrock and boulder slabs. There is a wide riparian corridor associated with this stream. The floodplain consists primarily of mature forest adjacent to both banks of the stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S147c are on the second page of this form.



Photograph Taken Upstream



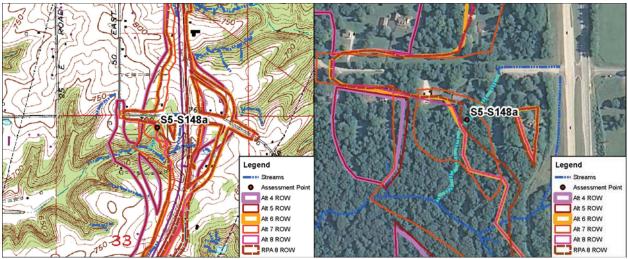
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S147c RIVER BASIN White River DRAINAGE AREA (mi²)	.17
LENGTH OF STREAM REACH (ft) 200 LAT. 39.26418 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.52606) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	UUEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ ✓ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
■ BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 5% ▼ ■ BEDROCK [16 pt] 70% ■ FINE DETRITUS [3 pts] 0%	Substrate
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ 0 %	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ O% ☐ O% ☐ O% ☐ O% ☐ O% ☐ O%	36
Tatal of Research and of the Control	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 32 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 30
> 22.5 - 30 cm [30 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull
2 4.0 meters (2 13) [30 pts] 2 1.0 m - 1.5 m (2 3 3 - 4 6) [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 10'/0.8' AVERAGE BANKFULL WIDTH (meters): 3.05 This information must also be completed	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 10'/0.8' AVERAGE BANKFULL WIDTH (meters): 3.05 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 10'/0.8' AVERAGE BANKFULL WIDTH (meters): 3.05 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Max=30
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3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 10'/0.8' AVERAGE BANKFULL WIDTH (meters): 3.05 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominan	Max=30 25
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 10'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5-10m Residential, Park, New Field COMMENTS OHW = 10'/0.8' AVERAGE BANKFULL WIDTH (meters): 3.05 AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.0 m (<=3' 3	Max=30 25
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 10'/0.8' AVERAGE BANKFULL WIDTH (meters): 3.05 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predom	Max=30 25
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Solution	Max=30 25
Solution	Max=30 25
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS AVERAGE BANKFULL WIDTH (meters): 3.05	Max=30 25
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 10'/0.8' AVERAGE BANKFULL WIDTH (meters): 3.05 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Max=30 25
S S S S S S S S S S	Max=30 25
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Max=30 25

ADDITIONAL STREAM	INFORMATION	(This Information	Must Also	be Complete	d):			S5-S14/C
QHEI PERF	ORMED? - Ye	s No QHEIS	Score	(If Yes	Attach	Completed QF	IEI Form	1)
DOWNSTRI WWH Name: Bea	EAM DESIGNATE	D USE(S)				D'atana (ana	- 11-	
	ibiossom Creek					Distance from		_
CWH Name:EWH Name:						Distance from E Distance from E		
	ATTACH COPIES C	F MAPS, INCLUD	ING THE EN	TIRE WATERS	_			THE SITE LOCATION
USGS Quadrangle Na				NRCS Soil M				Map Stream Order
County: Monroe			Townsh	nip / City:	ashing	ton		
MISCELLAN	IEOUS							_
Base Flow Conditions	· (Y/N):_ Y [Date of last precip	itation:_	10/13/11		Quantity:	0.25	
Photograph Informatio								
Elevated Turbidity? (Y		Canopy (% open): 0%					
Were samples collected	d for water chemis	stry? (Y/N): _	_ (Note lab	sample no. o	r id. and	d attach results) Lab Nu	ımber:
		Dissolved Oxygen		pH (S.U		Conducti	vity (µml	hos/cm)
Is the sampling reach	epresentative of th	ne stream (Y/N)	If not, p	olease explair	1:			
Additional comments/o	lescription of pollut	ion impacts:						
BIOTIC EV	ALUATION							
Performed? (Y/N): _ N	(If Yes, Re							les must be labeled with the site seessment Manual)
Fish Observed? (Y/N)		(Y/N) N Sala	amanders Ob	served? (Y/N	N N	Voucher? (Y/		N
Frogs or Tadpoles Ob	served? (Y/N)	Voucher? (Y/N)	N Aquation	c Macroinvert	ebrates	Observed? (Y	^(N) N	Voucher? (Y/N)
Comments Regarding	ыоюду							
D.D.A.W.I	NO AND NADE	ATIVE DECO	DIDTION	OF OTDE A	M DE	A OIL /This		
						-		oe completed): of the stream's location
FLOW -	See Strea	m Assessm	ent Fo	rm				
FLUW 4	S5-S147c			_	_	_		
	aerial ph	otograph,	and r	esource	e ph	otograph	ıs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 2.2 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet Stream Type: **Ephemeral USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 63 Watershed Area: 0.04 sq mi **Predominant Sub:** Cobble/bedrock Legal Drain (Y/N): Ν

UTME: 1774923 ft **UTMN**: 14259558 ft

Stream S5-S148a – Class III PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	797	0.04	2.16	
5	797	0.04	2.16	
6	340	0.02	0.78	
7	453	0.02	0.90	
8	340	0.02	0.78	
RPA 8	325	0.02	0.54	

Description of Potential Impact:

Impacts to S5-S148a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists primarily of cobble, bedrock, and gravel. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of mature forest where the Alternatives cross this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S148a are on the second page of this form.



Photograph Taken Upstream



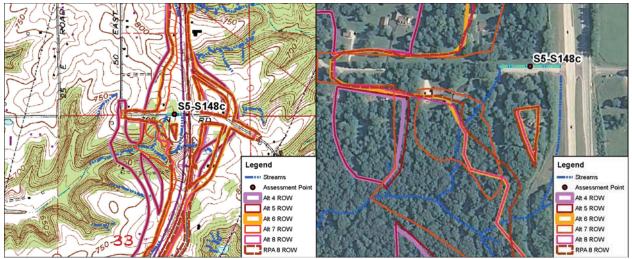
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S148a RIVER BASIN White River DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.26527 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52476) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 15%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 40% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] 15% MUCK [0 pts] 0%	33
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 28 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	4=
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 8	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	\A/: al4la
	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.2' AVERAGE BANKFULL WIDTH (meters): 1.30 This information must also be completed	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFULL WIDTH (meters): \$\frac{1}{2}\$ ANOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY LR (Per Bank) AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10m AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFULL WIDTH (meters): 1.30 L R (Most Predominant per Bank) RIPARIAN WIDTH RIPARIAN	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY LR (Per Bank) AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFULL WIDTH (meters): 1.30 LR (Most Predominant per Bank) LR (Most Predominant per Bank)	Max=30
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m Narrow <5m None AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFULL WIDTH (meters): 1.30 L R (Most Predominant per Left (L) and Right (R) as looking downstream Nature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Cr None Mining or Construction	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFULL WIDTH (meters): L R (Per Bank) L R (Most Predominant per Bank) V D Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Cr	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Residentian per Bank) Residential per Bank) Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKFUL	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE BANKF	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY WIDTH FLOODPLAIN QUALITY WIDTH FLOODPLAIN QUALITY Wide >10m Immature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Immature Forest, Shrub or Old Immature Forest, None Residential, Park, New Field Open Pasture, Row Cramber Flowing Subsurface flow with isolated pools (Interstitial) Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	15 op
COMMENTS OHW - 2.2' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10m Moderate 5-10m Narrow <5m None COMMENTS Fenced Pasture COMMENTS RIPARIAR (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None SINUOSITY (Number of bends per 61 m (200 ft) of channel) AVERAGE BANKFULL WIDTH (meters): 1.30 AVERAGE	Max=30 15

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60
Photograph Information:
Elevated Turbidity? (Y/N): _ N Canopy (% open): _ 20%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N):N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form
Stee Stream Assessment Form S5-S148a for site topographic map,
aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 28 Quarter: SE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.0 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type: IDEM Jurisdiction:** HHEI No Watershed Area: 12

Evaluation Score: 12 **Watershed Area:** 0.04 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1775247 ft **UTMN**: 14259832 ft

Stream S5-S148c – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	320	0.01	0.46	
5	320	0.01	0.46	
6	320	0.01	0.46	
7	320	0.01	0.46	
8	320	0.01	0.46	
RPA 8	320	0.01	0.46	

Description of Potential Impact:

Impacts to S5-S148c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located along West Sample Road. This channel flows to S5-S147b_2 via a pipe under West Sample Road. There is no riparian buffer associated with this artificial channel. The floodplain consists of new field on the left bank and a roadway on the right. No photographs are available at this time.



Photograph Taken Upstream



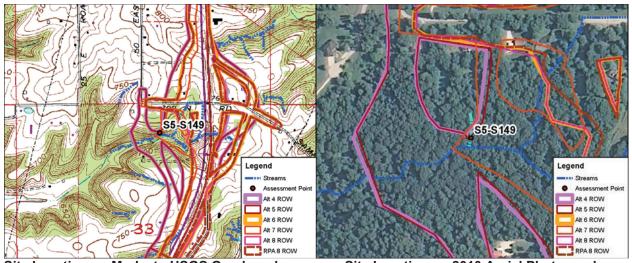
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S148c RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.26602 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.52361) (Concrete Gutter-Modified CI	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	ı HHEI
TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts] O%	Substrat Max = 40
COBBLE (65-256 mm) [12 pts]	IVIAX - 4
☐ GRAVEL (2-64 mm) [9 pts]	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.30	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Normation must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): O.30 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) None water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) None water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1'/0.2' AVERAGE BANKFULL WIDTH (meters): OHW 1'/0.2' AVERAGE BANKFULL WIDTH (mete	Width Max=30 5

ADDITIONAL STREA	M INFORMATION (This Information Must Also be Co		-51460
QHEI PERF	ORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)	
DOWNSTR	EAM DESIGNATED USE(S)		
WWH Name: Bea	nblossom Creek	_ Distance from Evaluated Stream	
CWH Name: _		Distance from Evaluated Stream	
EWH Name:		Distance from Evaluated Stream	
		WATERSHED AREA. CLEARLY MARK THE SITE LOCATI	ON
USGS Quadrangle Na	me: Modesto NRCS	S Soil Map Page: NRCS Soil Map Stream Order	r
County: Monroe	Township / Ci	City: Washington	
MISCELLA			
Base Flow Conditions	? (Y/N): Y Date of last precipitation: 04/2	24/12 Quantity: 0.15	
Photograph Information	n:		
Elevated Turbidity? (Y	//N): _ N		
Were samples collecte	ed for water chemistry? (Y/N): N (Note lab sampl	ole no. or id. and attach results) Lab Number:	
Field Measures: Te	emp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach	representative of the stream (Y/N) If not, please	e explain:	
Additional comments/o	description of pollution impacts:		
BIOTIC EV	ALUATION		-
Performed? (Y/N): N	(If Yes, Record all observations. Voucher collect	ctions optional. NOTE: all voucher samples must be labeled	with the site
(/ _		s from the Primary Headwater Habitat Assessment Manual)	
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salamanders Observed	ed? (Y/N) N Voucher? (Y/N) N	
Frogs or Tadpoles Ob	served? (Y/N) N Voucher? (Y/N) Aquatic Maci	croinvertebrates Observed? (Y/N)	
Comments Regarding	Biology:		
DRAWI	NG AND NARRATIVE DESCRIPTION OF S	STREAM REACH (This <u>must</u> be completed):	
		evaluation and a narrative description of the stream's lo	
merade importa	intranumarks and other reacties of interest for site ex	evaluation and a namative description of the stream's lo	cation
•	See Stream Assessment Form		
FLOW -			
	S5-S148c for site topograph	-	
	aerial photograph, and reso	ource photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 1.5 feet Channelized/Type: No/Natural OHWM Depth: 0.1 feet Stream Type: **Ephemeral USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 36 Watershed Area: 0.01 sq mi **Predominant Sub:** Cobble/gravel Legal Drain (Y/N): Ν

UTME: 1774512 ft **UTMN**: 14259205 ft

Stream S5-S149 – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	102	0.01	0.20	
5	57	0.01	0.10	
6	0	0.00	0.00	
7	109	0.01	0.24	
8	0	0.00	0.00	
RPA 8	0	0.00	0.00	

Description of Potential Impact:

Impacts to S5-S149 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of cobble and gravel. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S149 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



36

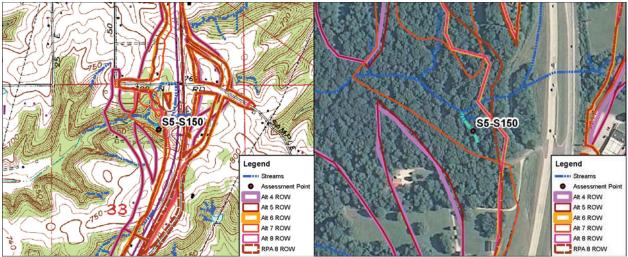
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S149 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 175 LAT. 39.26431 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52622) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING RECENT OR NO RECOVERED RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDDER (>256 mm) [16 pts]	Point
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts] 40% CLAY or HARDPAN [0 pt] 0% MUCK [0 pts] 0%	Wax - 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0% 0%	26
Total of Percentages of 40.00% (A) Substrate Percentage Check 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\left\) \(\left\) 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.5' / 0.1' AVERAGE BANKFULL WIDTH (meters): 1.00	5
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	pp
None Fenced Pasture Mining or Construction	
COMMENTS COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS COMMENTS	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 2.0 3.0 3.0 0.5 1.5 2.5 3	
0.5 1.5 2.5 >3	
)O ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 20%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the since the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vouche
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form

FLOW

S5-S149 for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A 05120202010 **OHWM Width:** Watershed: 1.0 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet Stream Type: **Ephemeral USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 36 Watershed Area: 0.01 sq mi **Predominant Sub:** Cobble/gravel Legal Drain (Y/N): Ν

31 117001010	UTME: 1	775046 ft	UTMN:	14258868 ft
		/ /5U4h π	O I IVIN.	14/58868 II

Stream S5-S150 – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	182	0.01	0.49	
5	182	0.01	0.49	
6	0	0.00	0.00	
7	182	0.01	0.39	
8	0	0.00	0.00	
RPA 8	0	0.00	0.01	

Description of Potential Impact:

Impacts to S5-S150 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of cobble, gravel, and leaf pack. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S150 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

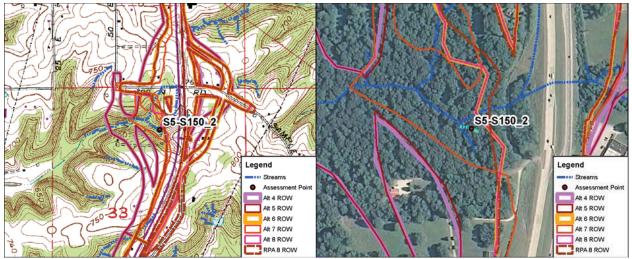


36

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S150 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 180 LAT. 39.26337 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52434) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDR SLABS [16 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 15%	Point
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 40% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] 30% ☐ MUCK [0 pts] 0% ☐ SAND (<2 mm) [6 pts]	26
Total of Percentages of 40 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	A - B
	D. 10
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW - 1.0' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.75	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ Wide >10m	
Field Croan or industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	Эр
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent))
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	_
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0	
None 1.0 2.0 3.0 3.0 0.5 1.5 2.5	
☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0	00 ft)

ADDITIONAL STREAM	INFORMATION (This Information Must Als	o be Completed):		85-8150
QHEI PERF	ORMED? - Yes No QHEI Score	(If Yes, Atta	ch Completed QHEI Form)
DOWNSTRE WWWH Name: Bear CWH Name: EWH Name:	EAM DESIGNATED USE(S) nblossom Creek		_ Distance from Evaluatec _ Distance from Evaluatec _ Distance from Evaluatec	d Stream _
MAPPING: A	ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map P	age: 13 NRCS Soil	Map Stream Order
County: Monroe	Town	ship / City: Washir	ngton	
MISCELLAN Base Flow Conditions?	P (Y/N): N Date of last precipitation:	05/11/06	Quantity: 0.60	
Photograph Information	66 Upstream / 67 Downstream / 68 Right	bank / 69 Left bank		
Elevated Turbidity? (Y/	(N): N Canopy (% open): 30	%		
Were samples collecte	d for water chemistry? (Y/N): (Note la	ab sample no. or id. a	and attach results) Lab Nu	mber:
Field Measures: Te	mp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmh	nos/cm)
Is the sampling reach i	representative of the stream (Y/N) Y If no	t, please explain:		
Additional comments/c	lescription of pollution impacts:			
BIOTIC EV	ALUATION			
Performed? (Y/N):	(If Yes, Record all observations. Vouch ID number. Include appropriate field da Voucher? (Y/N) Salamanders (Served? (Y/N) Voucher? (Y/N) Aqua	•	mary Headwater Habitat Ass Voucher? (Y/N)	
DRAWI	NG AND NARRATIVE DESCRIPTION	OF STREAM R	EACH (This <u>must</u> b	e completed):
Include importa	nt landmarks and other features of interest fo	or site evaluation an	d a narrative description	of the stream's location
FLOW S	ee Stream Assessment Fo 5-S150 for site topogra erial photograph, and r	phic map,	otographs	

Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A OHWM Width: Watershed: 05120202010 3.0 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Stream Type: **Ephemeral USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** Watershed Area: 0.01 sq mi 21 **Predominant Sub:** Sand/clay Legal Drain (Y/N): Ν

UTME:	1775049 ft	UTMN:	14258934 ft

Stream S5-S150_2 – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	100	0.01	0.34		
5	100	0.01	0.34		
6	0	0.00	0.03		
7	100	0.01	0.34		
8	0	0.00	0.03		
RPA 8	0	0.00	0.05		

Description of Potential Impact:

Impacts to S5-S150_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of clay overlain with sand. There is a wide riparian corridor along both banks of this stream. The floodplain consists of immature forest along both banks. Photographs taken upstream and downstream where the Alternatives cross S5-S150_2 are on the second page of this form.



Photograph Taken Upstream



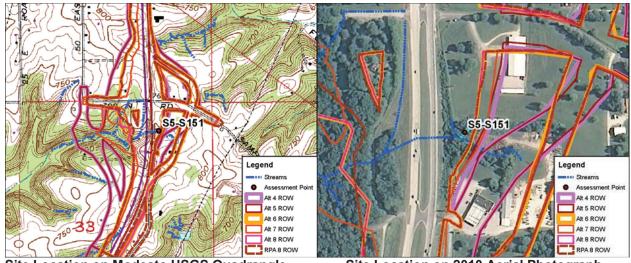
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S150_2 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 100 LAT. 39.26356 LONG. RIVER CODE RIVER MILE	
DATE 05/30/12 SCORER JDP COMMENTS (Long: -86.52433) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 25%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	11
Tatal (Parantage of)	
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
 	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts]	Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): 0.91	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ARIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V V Wide > 10m Mature Forest, Wetland Conservation Tillage	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY %NOTE: River Left (L) and Right (R) as looking downstream % RIPARIAN WIDTH RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.91 L R (Most Predominant per Bank) L R (Most Predominant per Bank) Urban or Industrial	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row C None Mining or Construction	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note: RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 Mature Forest, Wetland Conservation Tillage Immature Forest, Wetland Urban or Industrial Field Narrow <5m Residential, Park, New Field Open Pasture, Row COMMENTS None Fenced Pasture Mining or Construction COMMENTS	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5 m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): O.91 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral))	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral))	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.91 AVERAGE BANKFULL WIDTH (meters): 0.91 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): OHW = 3'/0.5' OHW	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row C None FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30 5

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.9 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 33 Watershed Area: 0.01 sq mi **Predominant Sub:** Sand/silt Legal Drain (Y/N): Ν

UTME: 1775716 ft **UTMN**: 14259202 ft

Stream S5-S151- Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	175	0.01	0.11
5	166	0.01	0.08
6	103	0.01	0.02
7	167	0.01	0.08
8	102	0.01	0.02
RPA 8	103	0.01	0.02

Description of Potential Impact:

Impacts to S5-S151 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and silt. There is a moderately-wide riparian corridor along both banks of this stream. The adjacent floodplain consists of new field to the right and barren land to the left, used as a spoil area. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S151 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



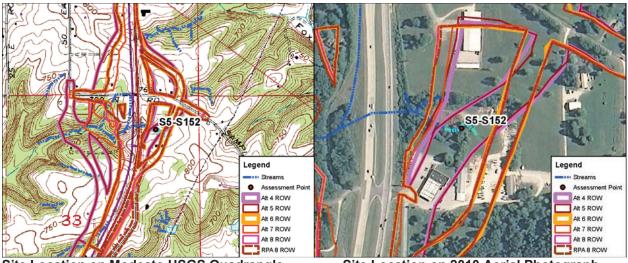
BLDR SLABS [16 pts]	uctions
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52196) (Natural-Class I) NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMENTATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] 0% SILT [3 pt] SIL	HHE Metri Point Substra Max = 4
LENGTH OF STREAM REACH (ft) 170 LAT. 39.26428 LONG. RIVER CODE RIVER CODE RIVER MILE DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52196) (Natural-Class I) NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction Modifications: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] 0% SILT [3 pt] S	HHE Metri Point Substra Max = 4
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE SILT [3 pt] 35% BDULDER (>256 mm) [16 pts] 0% SILT [3 pt] 15% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0% COBBLE (65-256 mm) [12 pts] 0% GRAVEL (2-64 mm) [9 pts] 10% MUCK [0 pts]	HHE Metri Point Substra Max = 4
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] MUCK [0 pts]	HHE Metri Point Substra Max = 4
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] MUCK [0 pts]	HHE Metr Point Substra Max =
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] MUCK [0 pts]	HHE Metri Point Substra Max =
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] PERCENT TYPE SILT [3 pt] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts]	Metri Point Substra Max = 4
TYPE PERCENT TYPE PERCENT □ BLDR SLABS [16 pts] 0% □ ✓ SILT [3 pt] 35% □ BOULDER (>256 mm) [16 pts] 0% □ □ LEAF PACK/WOODY DEBRIS [3 pts] 15% □ BEDROCK [16 pt] 0% □ □ FINE DETRITUS [3 pts] 0% □ COBBLE (65-256 mm) [12 pts] 0% □ □ CLAY or HARDPAN [0 pt] 0% □ GRAVEL (2-64 mm) [9 pts] 10% □ □ MUCK [0 pts] 0%	Metri Point Substra Max = 4
BLDR SLABS [16 pts]	Substra Max =
BOULDER (>256 mm) [16 pts]	Max =
BEDROCK [16 pt]	Max =
GRAVEL (2-64 mm) [9 pts] 10% MUCK [0 pts] 0%	
Si di Vez (2 or min) (o peo)	12
SAND (<2 mm) [6 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100%	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
, , , , , , , , , , , , , , , , , , , ,	Pool De
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = :
> 30 centimeters [20 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 9	
MAXIMOM 1 GGE BET 111 (Centimeters).	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfu
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (<=3' 3") [5 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=3
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.9' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.58	5
AVERAGE BANKFULL WIDTH (Heters).	· 3
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\text{NOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{VNOTE} \text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}\text{River I eft (I) and Right (R) as looking downstream \$\frac{1}{2}River I eft (I) and River I eft (I)	
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RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	
RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial	qc
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Conservation Tillage Urban or Industrial Open Pasture, Row Crop	qc
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial	эр
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RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m None Fenced Pasture Fenced Pasture FLOW REGIME (At Time of Evaluation) L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
RIPARIAN WIDTH L R (Per Bank) Wide >10m Woderate 5-10m Narrow <5m None COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most P	-
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or	-
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Wide >5m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	-
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Moderate 5-10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 COMMENTS L R (Most Predominant per Bank) L R (Onservation Tillage Urban or Industrial Dopen Pasture, Row Crop Mining or Construction Constructio	-
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub Paleston Imm	-
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Packet Struck Immature Fores	-
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderat	-) L

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 50%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S151 for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 33 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.9 feet Channelized/Type: No/Natural OHWM Depth: 0.4 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** Watershed Area: 0.17 sq mi 41 Gravel/sand Legal Drain (Y/N): Ν **Predominant Sub:**

UTME:	1775933 ft	UTMN:	14259093 ft

Stream S5-S152 – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	213	0.01	0.14	
5	213	0.01	0.14	
6	0	0.00	0.00	
7	0	0.00	0.00	
8	0	0.00	0.00	
RPA 8	0	0.00	0.00	

Description of Potential Impact:

Impacts to S5-S152 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel, sand, and leaf pack. There is a moderately-wide riparian corridor on the left bank and a narrow riparian buffer along the right. The adjacent floodplain consists of a commercial use to the left and barren land to the right used as a spoil area. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S152 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

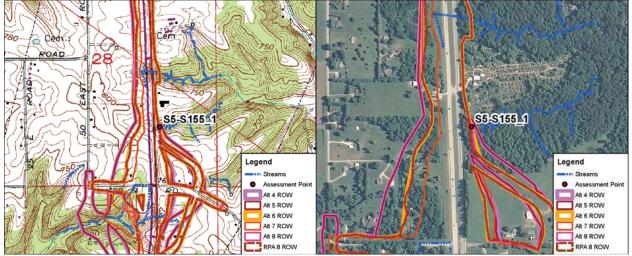


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S152 RIVER BASIN White River DRAINAGE AREA (mi²)	0.17
LENGTH OF STREAM REACH (ft) 200 LAT. 39.26398 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52120) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	21
Table (Parameters of)	
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 9	
	l
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.58	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY PLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Narrow <5m Residential, Park, New Field Open Pasture, Row Completed RIPARIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank)	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH (MOST) ↑ WOTE: River	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Completed None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) O,5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH (MOST) ↑ WOTE: River	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) / WWH Name: Beanblossom Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 30%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N):N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the side of the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form
S5-S152 for site topographic map,
aerial photograph, and resource photographs

Save as pdf

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Fox Hollow

Quarter: SE Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 28

Legal Drain (Y/N): N

UTME: 1775625 ft **UTMN**: 14261037 ft

USGS Quadrangle:	Modesto
Section:	28
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.5 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Detritus/sand

Stream S5-S155_1 – Class I PHWH				
Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
82	0.01	0.14		
82	0.01	0.14		
39	0.01	0.14		
14	0.01	0.12		
27	0.01	0.12		
14	0.01	0.10		

Description of Potential Impact:

Impacts to S5-S155_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of fine detritus and sand. There is a moderately-wide riparian corridor along the left bank and a wide buffer along the right bank. The adjacent floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S155_1 are on the second page of this form.



Photograph Taken Upstream

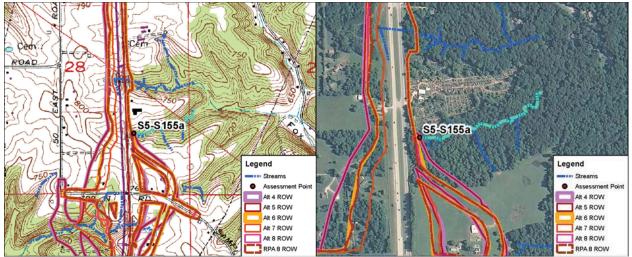


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S155_1 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 80 LAT. 39.26932 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.52225) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 9%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] BEDROCK [16 pt] DW LEAF PACK/WOODY DEBRIS [3 pts] 5% 75%	Substrat
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ ☐ 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	13
Total of Percentages of Occor (A) Substrate Percentage (B)	A . D
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Mux - 0
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
	15
COMMENTS OHW = 3.57.5 AVERAGE BANKFULL WIDTH (meters): 1.07	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
☐ ✓ Wide >10m ☐ Mature Forest, Wetland ☐ Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	pp
None Fenced Pasture Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 2.0 3.0 3.0 0.5 1.5 2.5 3	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe	00 ft)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Stream
Unnamed Trib. Fox Hollow

Quarter: SE Range: R1W

Legal Drain (Y/N):

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 86

UTME: 1775655 ft **UTMN**: 14261071 ft

Ν

USGS Quadrangle: Modesto Section: 28 Township: T10N IDEM 303(d) List: N/A OHWM Width: 11.5 feet OHWM Depth: 1.0 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Boulder/gravel

	Stream S5-	S155a – Class III PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	95	0.03	0.46
5	96	0.03	0.47
6	22	0.01	0.31
7	11	0.01	0.24
8	19	0.01	0.29
RPA 8	16	0.01	0.26

Description of Potential Impact:

Impacts to S5-S155a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of boulders, gravel, and sand. There is a wide riparian corridor along both banks of this stream. The adjacent floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S155a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

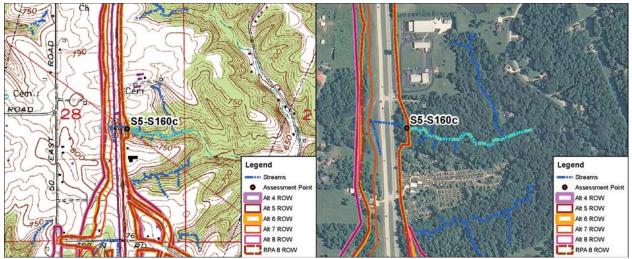


	THILI GOOLE (sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER S	5-S155a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200	LAT. 39.26941 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KS		
NOTE: Complete All Items On This Form	n - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RE	COVERY
SUBSTRATE (Estimate percent of every state of the st	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
	ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	I HHE
	ERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	0% SILT [3 pt] 5%	Point
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	50% LEAF PACK/WOODY DEBRIS [3 pts] 5% 0%	Substra
	10% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	20% MUCK [0 pts] 0%	
SAND (<2 mm) [6 pts]	10% ARTIFICIAL [3 pts] 0%	31
T. I. (D	Cubatrata Daragataya	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	Substrate Percentage Check 100% (B)	A+B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 25 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
		
- `	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of d culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	30
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 29	
		
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check ONLY one box):	Bankfu Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW = 11.5'/1'	AVERAGE BANKFULL WIDTH (meters): 3.50	25
OSIMILETTO	AVERAGE BANKS GEE VIID III (IIIcicis).	23
	This is formed to the second t	
RIPARIAN ZONE AND FLOODP	This information <u>must</u> also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old Field Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row 0	Crop
None	Fenced Pasture Mining or Construction	
COMMENTS	Fenced Pasture Milning or Construction	nn
· ·	nluation) (Check ONLY one box):	m4\
Stream FlowingSubsurface flow with isolated pool	Moist Channel, isolated pools, no flow (Intermitte Dry channel, no water (Ephemeral)	nt)
COMMENTS_		
CINILIOCITY /Noh f househouse	per 61 m (200 ft) of channel) (Check ON) V and have	
SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	
0.5	1.5 2.5 3	
CTDEAM CDADIENT FOTIMATE		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft)	t/100 ft)
<u> </u>	<u> </u>	•

ADDITIONAL STRE	EAM INFORMATION (This Information Must	Also be Completed):		S5-S155a
QHEI PEF	RFORMED? - Yes V No QHEI Score	(If Yes, Atta	ach Completed QHEI Form)	
DOWNST WWH Name: For CWH Name:	TREAM DESIGNATED USE(S) ox Hollow		_ Distance from Evaluated Distance from Evaluated Distance from Evaluated Distance from Evaluated Distance	Stream _
MAPPING	3: ATTACH COPIES OF MAPS, INCLUDING TH	IE <u>ENTIRE</u> WATERSHED	AREA. CLEARLY MARK T	HE SITE LOCATION
USGS Quadrangle N	Name: Modesto	NRCS Soil Map P	age: NRCS Soil M	lap Stream Order
County: Monroe		ownship / City: Washir	ngton	
MISCELL	ANEOUS			
Base Flow Condition	ns? (Y/N):_Y Date of last precipitation:	10/13/11	Quantity: 0.25	
Photograph Informa	tion:			
Elevated Turbidity?	(Y/N): N Canopy (% open):	5%		
Were samples colle	cted for water chemistry? (Y/N): (No	nte lab sample no. or id. a	and attach results) Lab Num	ber:
	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmho	os/cm)
	ch representative of the stream (Y/N) Y It	f not, please explain:		
Performed? (Y/N): _ Fish Observed? (Y/I Frogs or Tadpoles C Comments Regardin	Observed? (Y/N) N Voucher? (Y/N) N	d data sheets from the Priners Observed? (Y/N) Aquatic Macroinvertebrat	Voucher? (Y/N) N tes Observed? (Y/N) N	voucher? (Y/N) N completed):
FLOW →	See Stream Assessment S5-S155a for site tope aerial photograph, and	Form ographic map	,	

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Fox Hollow

Quarter: SE Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI

Evaluation Score: 38 Legal Drain (Y/N): N

Alternatives

5

6

7

8

RPA8

UTME: 1775606 ft **UTMN**: 14262140 ft

Length of Impact (feet)

56

59

59

59

59

59

USGS Quadrangle:	Modesto
Section:	28
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.0 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.06 sq mi
Predominant Sub:	Detritus/silt

60c – Class I PHWH				
Area of Impact (acres)	Riparian Impact (acres)			
0.01	0.24			
0.01	0.25			
0.01	0.25			
0.01	0.25			
0.01	0.25			

0.25

Description of Potential Impact:

Impacts to S5-S160c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of fine detritus and silt. There is a wide riparian corridor associated with the left bank, while the right bank consists of a moderately-wide riparian buffer. The adjacent floodplain consists of an old field. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S160c are on the second page of this form.

0.01

Stream S5-S160c



Photograph Taken Upstream



Photograph Taken Downstream

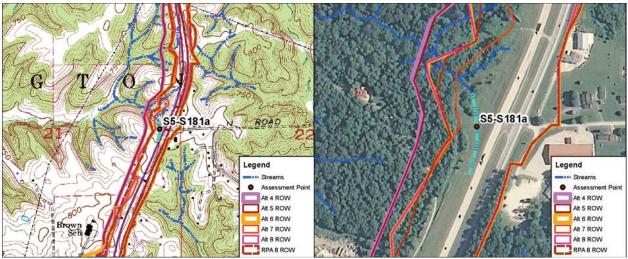


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S160c RIVER BASIN White River DRAINAGE AREA (r	ni²) 0.06
LENGTH OF STREAM REACH (ft) 200 LAT. 39.27235 LONG. RIVER CODE RIVER M	
DATE 10/15/11 SCORER DEW/KSS COMMENTS (Long: -86.52230) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for	Instructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO MODIFICATIONS:	RECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE bo	xes ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ O%	8
Total of Percentages of Annual (A) Substrate Percentage (B)	1
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	III III III III III III III III III II
> 22.5 - 30 cm [30 pts]	25
COMMENTSMAXIMUM FOOL DEPTH (centimeters).	5
	5
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstrean	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Mature Forest, Wetland Conservation Till Note 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m (<=3' 3") [5 p	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY □ NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH □ RIPA	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY □ NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH □ RIPA	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most	Bankful Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Bankful Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Bankful Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (<=3' 3") [5 pts] This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide > 10 m (<=3' 3") [5 pts] L R (Most Predominant per Bank) L R Wide > 10 m Mature Forest, Wetland Moderate 5-10 m Mature Forest, Wetland Narrow <5 m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construction Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Now water (Ephemeral)	Bankful Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH L R (Per Bank) Wide >10 m L R (Most Predominant per Bank) Wide >10 m L R (Most Predomi	Bankful Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Wide >10 m Moderate 5-10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construction Flow (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) No water (Ephemeral)	Bankful Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10 m (x=3' 3") [5 pts] L R (Most Predominant per Bank) Mature Forest, Wetland Noderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Bankful Width Max=30 5
> 4.0 meters (> 13') [30 pts]	Bankful Width Max=30 5

ADDITIONAL STR	EAM INFORMATION (This Information I	- Must Also	be Completed):		S5-S160c
QHEI PE	RFORMED? - Yes ✓ No QHEI So	ore	(If Yes, Atta	ach Completed QHEI Form	n)
	TREAM DESIGNATED USE(S)		,	·	
WWH Name:	• • •			_ Distance from Evaluate	ed Stream
CWH Name: _			Distance from Evaluate	d Stream _	
EWH Name:				Distance from Evaluate	d Stream
MAPPIN	G: ATTACH COPIES OF MAPS, INCLUDIN	IG THE EI	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle	Name: Modesto	_	NRCS Soil Map F	Page: NRCS Soil	Map Stream Order
County: Monroe		Towns	ship / City: Washi	ngton	
MISCELI	LANEOUS				
Base Flow Condition	ons? (Y/N):_Y Date of last precipita	ation:	10/13/11	Quantity: 0.25	
Photograph Informa	ation:				
Elevated Turbidity?	? (Y/N): N Canopy (% open):	959	%		
Were samples colle	ected for water chemistry? (Y/N): N	_ (Note lal	b sample no. or id. a	and attach results) Lab Nu	ımber:
Field Measures:	Temp (°C) Dissolved Oxygen (n	ng/l)	pH (S.U.)	Conductivity (µml	nos/cm)
Is the sampling rea	ach representative of the stream (Y/N)	If not	, please explain:		
Additional commen	nts/description of pollution impacts:				
BIOTIC	EVALUATION				
Performed? (Y/N):	N (If Yes, Record all observations ID number. Include appropriat		•	·	les must be labeled with the sitesessment Manual)
Fish Observed? (Y			Observed? (Y/N) N	Voucher? (Y/N)	
Frogs or Tadpoles	Observed? (Y/N) Voucher? (Y/N)	Aqua	tic Macroinvertebra	tes Observed? (Y/N)	Voucher? (Y/N)
Comments Regard	ling Biology:				
DD 4	WING AND NADDATIVE DECOR	IDTION	OF STREAM F	75 A O.H. /Th::4 h	
	WING AND NARRATIVE DESCR			• —	
Include impo	ortant landmarks and other features of in	nterest fo	r site evaluation an	nd a narrative description	of the stream's location
FLOW -	See Stream Assessmen	t For	m		
FLUVV -	S5-S160c for site to	pogra	phic map,		
	aerial photograph, a	nd re	source pho	otographs	

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 21 Quarter: NE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No **Evaluation Score:** Watershed Area: 12

Evaluation Score: 12 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1776319 ft **UTMN**: 14267743 ft

Stream S5-S181a – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	432	0.01	0.27		
5	432	0.01	0.27		
6	432	0.01	0.27		
7	432	0.01	0.24		
8	432	0.01	0.27		
RPA 8	432	0.01	0.27		

Description of Potential Impact:

Impacts to S5-S181a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with either bank of this artificial channel. The floodplain consists of maintained INDOT ROW along the right bank and new field along the left bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S181a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



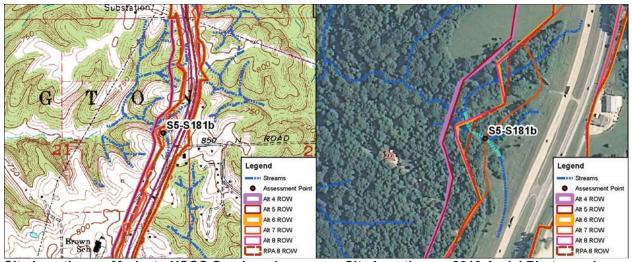
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S181a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.28773 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51967) (Concrete Gutter-Modified Cl	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts]	ب ا
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B) Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣ NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Astroner Forest, Wetland Moderate 5-10 m Mature Forest, Wetland Moderate 5-10 m Residential, Park, New Field Narrow <5 m Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) None Conservation (Intermitten Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also	S5-S181a be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EN	TIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Townsh	nip / City: Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_	04/24/12 Quantity: 0.15
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 100%	6
Were samples collected for water chemistry? (Y/N): (Note lab	sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, p	please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes. Record all observations. Voucher	collections optional. NOTE: all voucher samples must be labeled with the site
· /	sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Ob	oserved? (Y/N) N Voucher? (Y/N) N
	c Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION	OF STREAM REACH (This <u>must</u> be completed):
	site evaluation and a narrative description of the stream's location
· · · · · · · · · · · · · · · · · · ·	



See Stream Assessment Form S5-S181a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 3.2 feet Channelized/Type: No/Natural OHWM Depth: 2.3 feet Ephemeral **USCOE** Jurisdiction: **Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes **Evaluation Score:** Watershed Area: 0.01 sq mi 57 **Predominant Sub:** Gravel/sand Legal Drain (Y/N): Ν

UTME: 1776215 ft **UTMN**: 14268008 ft

Stream S5-S181b – Class II PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	309	0.02	0.79		
5	309	0.02	0.79		
6	260	0.02	0.78		
7	122	0.01	0.32		
8	264	0.02	0.78		
RPA 8	199	0.01	0.70		

Description of Potential Impact:

Impacts to S5-S181b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor along both banks of this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S181b are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



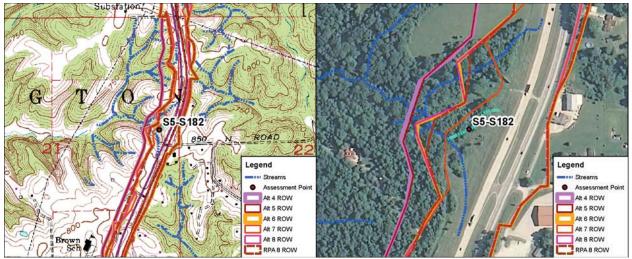
	THIEF OCCIT (Sum of metrics 1, 2, 3) :
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S	5-S181b RIVER BASIN White River DRAINAGE AREA (mi²) 0.01
	LAT. 39.28846 LONG. RIVER CODE RIVER MILE
DATE 05/11/06 SCORER A Rogers	
NOTE: Complete All Items On This Form	- Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	URAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
SUBSTRATE (Estimate percent of eve	ry type of substrate present. Check ONLY two predominant substrate TYPE boxes
, -	ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
	ERCENT TYPE PERCENT Metri
BLDR SLABS [16 pts]	5/6 SILT [5 Pt]
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 5% Substra
BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts]	Max = 4
GRAVEL (2-64 mm) [9 pts]	65% MUCK to ptcl 0%
SAND (<2 mm) [6 pts]	20% ARTIFICIAL [3 pts] 0%
SAND (12 mm) [0 pts]	7//// TOTAL (5 pto)
Total of Percentages of 7 Bldr Slabs, Boulder, Cobble, Bedrock	.00% (A) Substrate Percentage Check 100% (B) A + B
SCORE OF TWO MOST PREDOMINATE SUBS	TRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 7
- `	aximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Dep
	d culverts or storm water pipes) (Check ONLY one box): Max = 3
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 28
3. BANK FULL WIDTH (Measured as the	average of 3-4 measurements) (Check ONLY one box): Bankfu
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	✓ ≤ 1.0 m (<=3' 3") [5 pts] Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 3.2' / 2.3'	AVERAGE BANKFULL WIDTH (meters): 0.98
	This information must also be completed
RIPARIAN ZONE AND FLOODP	· · · · · · · · · · · · · · · · · · ·
RIPARIAN WIDTH	FLOODPLAIN QUALITY
L R (Per Bank)	L R (Most Predominant per Bank) L R
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old
Moderate 5-10m	Field Urban or Industrial
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop
None Name	Fenced Pasture Mining or Construction
COMMENTS	Fenced Pasture Mining or Construction
33MMERTO_	
FLOW REGIME (At Time of Eval	
Stream Flowing Subsurface flow with included page	Moist Channel, isolated pools, no flow (Intermittent)
Subsurface flow with isolated poo	ls (Interstitial) Dry channel, no water (Ephemeral)
	<u> </u>
	er 61 m (200 ft) of channel) (Check ONLY one box):
None 0.5	1.0 1.5
	1.0
STREAM GRAD <u>IEN</u> T ESTIMATE	
_	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Als	so be Completed):
QHEI PERFORMED? - Yes / No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: 8 NRCS Soil Map Stream Order
County: Monroe Town	nship / City: Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation:	05/11/06 Quantity: 0.60
Photograph Information: 30 Upstream / 31 Downstream / 32 Right	Bank / 33 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 70	
Were samples collected for water chemistry? (Y/N): (Note la	ab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N) If no	t, please explain:
Additional comments/description of pollution impacts:	
Fish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology:	ner collections optional. NOTE: all voucher samples must be labeled with the site ta sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) atic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Include important landmarks and other features of interest fo	or site evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S181b for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 2.0 feet Channelized/Type: No/Natural OHWM Depth: 0.4 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes valuation Score: 52 Watershed Area: 0.01 sq mi Gravel/sand Legal Drain (Y/N): Ν **Predominant Sub:**

UTME: 1776337 ft **UTMN**: 14268046 ft

Stream S5-S182 – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	322	0.01	0.27	
5	322	0.01	0.27	
6	322	0.01	0.27	
7	322	0.01	0.23	
8	322	0.01	0.27	
RPA 8	322	0.01	0.27	

Description of Potential Impact:

Impacts to S5-S182 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor along the right bank and a narrow riparian buffer along the left. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S182 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



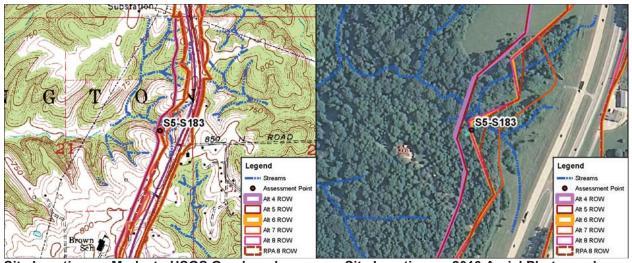
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S182 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.28856 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.51961) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] Sw	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 60% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 20% ARTIFICIAL [3 pts] 0%	22
Total of Percentages of 10 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 20	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' AVERAGE BANKFULL WIDTH (meters): OHW - 2.0' / 0.4' OHW - 2.0' /	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.80 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m None COMMENTS Fenced Pasture Flow REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 2	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] COMMENTS OHW - 2.0' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.5 1.5 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S182
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attac	ch Completed OHEL Form)
	on policied when only
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Pa	age: 13 NRCS Soil Map Stream Order
County: Monroe Township / City: Washin	gton
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_N Date of last precipitation:_ 05/11/06	Quantity: 0.60
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 40%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. an	nd attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
PIOTIC EVALUATION	
BIOTIC EVALUATION N	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prin	· · · · · · · · · · · · · · · · · · ·
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N)	Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrate	_ ` '-
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM R	EACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and	d a narrative description of the stream's location



See Stream Assessment Form S5-S182 for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 0.9 feet Channelized/Type: No/Natural OHWM Depth: 0.3 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes 0.01 sq mi **Evaluation Score:** Watershed Area: 52 Gravel/sand Legal Drain (Y/N): Ν **Predominant Sub:**

UTME: 1776070 ft **UTMN**: 14268026 ft

Stream S5-S183 – Class II PHWH							
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)				
4	116	0.01	0.19				
5	116	0.01	0.18				
6	80	0.01	0.02				
7	0	0.00	0.00				
8	83	0.01	0.02				
RPA 8	0	0.00	0.01				

Description of Potential Impact:

Impacts to S5-S183 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor along both banks of this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S183 are on the second page of this form.



Photograph Taken Upstream



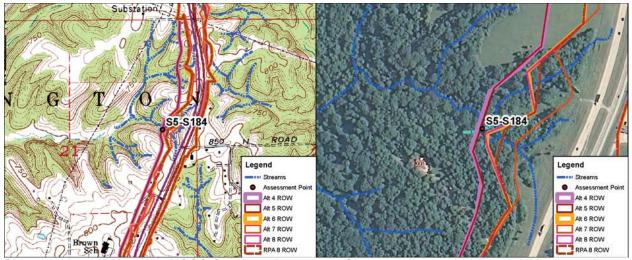
Photograph Taken Downstream



		HHEI Score (st	im of metrics	s 1, 2, 3) : -	
SITE NAME/LOCATION I-69 Section 5					
SITE NUMBER S5-S		White River	DRAIN	AGE AREA (mi²)	0.01
	T. 39.28851 LON		R CODE	RIVER MILE	
DATE 05/11/06 SCORER A Rogers	COMMENTS <u>(</u> L	ong: -86.52055) (Na	atural-Class	II)	
NOTE: Complete All Items On This Form - I	Refer to "Field Eva	luation Manual for Ol	hio's PHWH S	treams" for Inst	ructions
STREAM CHANNEL NONE / NATUR	AL CHANNEL R	ECOVERED RECOV	VERING RE	CENT OR NO REC	COVERY
MODIFICATIONS:	_		_		
SUBSTRATE (Estimate percent of every to	vne of substrate pre	sent Check ON/ Y two pr	edominant subst	rate TVPF hoxes	
(Max of 32). Add total number of significant					I HHI
TYPE PERCHAPO MACHANI		CII T [2 -4]		PERCENT	Meti Poin
BLDR SLABS [16 pts] 09 BOULDER (>256 mm) [16 pts] 09		SILT [3 pt] LEAF PACK/WOODY D	EBRIS [3 pts]	2 %	
BEDROCK [16 pt] 5%		FINE DETRITUS [3 pts]	3%	Substi Max =
COBBLE (65-256 mm) [12 pts] 5% GRAVEL (2-64 mm) [9 pts] 60°		CLAY or HARDPAN [0	pt]	0%	l linux
GRAVEL (2-64 mm) [9 pts] 60° SAND (<2 mm) [6 pts] 20°		MUCK [0 pts] ARTIFICIAL [3 pts]		0%	22
G/ (1/2 mm) [0 pto]					
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock)0% (A)	Substrate Percentage Check 100%	%	(B)	A + E
SCORE OF TWO MOST PREDOMINATE SUBSTRA	ATE TYPES: 15	TOTAL NUMBER (OF SUBSTRATE	TYPES: 7	
2. Maximum Pool Depth (Measure the maxin	mum pool depth with	in the 61 meter (200 ft)	evaluation reach	at the time of	Pool D
evaluation. Avoid plunge pools from road cu		oipes) (Check ONLY on	e box):		Max =
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]		> 5 cm - 10 cm [15 pts < 5 cm [5 pts]	J		
> 10 - 22.5 cm [25 pts]		NO WATER OR MOIS	T CHANNEL [0	pts]	25
COMMENTS		MAXIMUM POO	L DEPTH (centi	imeters): 14	
3. BANK FULL WIDTH (Measured as the ave		manta) (Chaola (ONLY one box):		Bank
> 4.0 meters (> 13') [30 pts]	rage of 3-4 measure	> 1.0 m - 1.5 m (> 3' 3"	,		Widt
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	✓	≤ 1.0 m (<=3' 3") [5 pts]]		Max=
COMMENTS OHW - 0.9' / 0.3'		AVERAGE BAN	KFULL WIDTH	(meters): 0.40	5
RIPARIAN ZONE AND FLOODPLA		n <u>must</u> also be complete OTE: River Left (L) and Ri		a downstream☆	
	FLOODPLAIN QUALIT		0 ()		
L R (Per Bank) Wide >10m	L R (Most Predo Mature Fore	minant per Bank) st. Wetland	L R	servation Tillage	
Wido Tom		orest, Shrub or Old		an or Industrial	
	Field			en Pasture, Row Ci	ron
Narrow <5m		Park, New Field			·
None L COMMENTS	Fenced Past	rure	LL Min	ing or Construction	1
					d-
FLOW REGIME (At Time of Evaluat Stream Flowing	ion) (Check ONLY or		isolated pools r	no flow (Intermitten	t)
Subsurface flow with isolated pools (I	nterstitial)		water (Ephem	,	7
COMMENTS_					T
SINUOSITY (Number of bends per 6					
	1.0 1.5	2.0		.0 3	
_		_			
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft)	Moderate to S	Severe	Severe (10 ft/	100 ft)
					7

ADDITIONAL STRE	AM INFORMATION (This Information I	Must Also be Completed):	S5-S183
QHEI PER	RFORMED? - Yes ✓ No QHEISo	core (If Yes, Att	ach Completed QHEI Form)
	REAM DESIGNATED USE(S) eanblossom Creek		Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING	: ATTACH COPIES OF MAPS, INCLUDIN	IG THE <u>ENTIRE</u> WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle N	lame: Modesto	NRCS Soil Map I	Page: 13 NRCS Soil Map Stream Order
County: Monroe		Township / City: Wash	ington
MISCELLA Base Flow Condition Photograph Informat	s? (Y/N):_N Date of last precipita	ation: 05/11/06	Quantity: 0.60
Field Measures:	cted for water chemistry? (Y/N): N Temp (°C) Dissolved Oxygen (n	_ (Note lab sample no. or id.	and attach results) Lab Number: Conductivity (µmhos/cm)
	VALUATION N (If Yes, Record all observations ID number. Include appropriate Voucher? (Y/N) Salam Vbserved? (Y/N) Voucher? (Y/N)	s. Voucher collections optiona	al. NOTE: all voucher samples must be labeled with the site rimary Headwater Habitat Assessment Manual) Voucher? (Y/N) ates Observed? (Y/N) Voucher? (Y/N)
		ent Form	





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 0.8 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet **Ephemeral USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 46 Watershed Area: 0.01 sq mi **Predominant Sub:** Bedrock/leaf pack Legal Drain (Y/N): Ν

UTME: 1776042 ft **UTMN**: 14268100 ft

Stream S5-S184 – Class II PHWH						
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres						
4	111	0.01	0.17			
5	92	0.01	0.14			
6	0	0.00	0.06			
7	0	0.00	0.00			
8	0	0.00	0.07			
RPA 8	0	0.00	0.02			

Description of Potential Impact:

Impacts to S5-S184 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of bedrock and leaf pack. There is a wide riparian corridor along both banks of this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S184 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



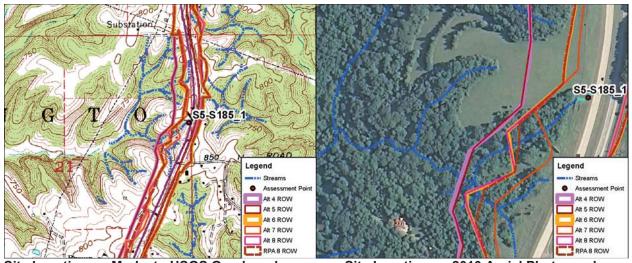
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S184 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 180 LAT. 39.28871 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52065) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ 0% ☐ ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	26
Total of Percentages of Total of Percentage (R)	1 -
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 19 TOTAL NUMBER OF SUBSTRATE TYPES: 7	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max - 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
	13
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts]	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.50	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY 公NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ARIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V V Wide > 10m Mature Forest, Wetland Conservation Tillage	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Completed None Mining or Construction	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH RIPARIAN WIDTH L R (Per Bank) Wide > 10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Narrow <5 m Residential, Park, New Field None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' AVERAGE BANKFULL WIDTH (meters): OHW - 0.8' / 0.2' AVERAGE BANKFULL WIDTH (meters): OLD This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ** NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY Under > 10.50 L R (Most Predominant per Bank) L R (Most Predominant per Bank	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Moderate 5-10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4" 8") [20 pts] COMMENTS OHW - 0.8' / 0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 3.0 m - 4.0 m (>9' 7" - 4" 8") [15 pts] > 1.0 m (<=3' 3") [5 pts]	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed): QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form) DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek
DOWNSTREAM DESIGNATED USE(S) / WWH Name: Beanblossom Creek
WWH Name: Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream Order County: Monroe Township / City: Washington MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 60% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
CWH Name: EWH Name: MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order Township / City: Washington MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: Distance from Evaluated Stream NRCS Soil Map Page: NRCS Soil Map Stream Order Township / City: Washington MISCELLANEOUS Base Flow Conditions? (Y/N): N Canopy (% open): Elevated Turbidity? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) If not, please explain: Additional comments/description of pollution impacts:
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream Order County: Monroe Township / City: Washington MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 60% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream Order Township / City: Washington MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 60% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60 Photograph Information:
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 60% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
Base Flow Conditions? (Y/N):N Date of last precipitation:
Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) If not, please explain: Additional comments/description of pollution impacts:
Elevated Turbidity? (Y/N): N Canopy (% open): 60% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
Additional comments/description of pollution impacts:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S184 for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No **Evaluation Score:** Watershed Area: 12

Evaluation Score:12Watershed Area:0.04 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1776698 ft **UTMN**: 14268573 ft

Stream S5-S185_1 – Modified Class I PHWH							
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres)							
4	114	0.01	0.00				
5	114	0.01	0.00				
6	114	0.01	0.00				
7	114	0.01	0.00				
8	114	0.01	0.00				
RPA 8	114	0.01	0.00				

Description of Potential Impact:

Impacts to S5-S185_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S185_1 are on the second page of this form.



Photograph Taken Upstream

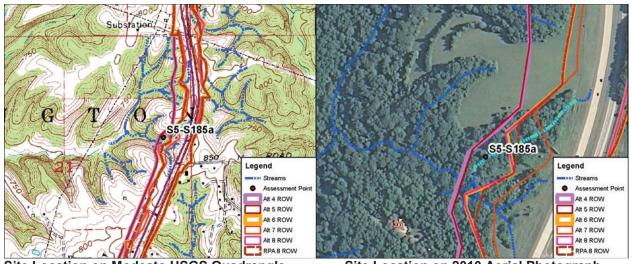


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S185_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 110 LAT. 39.29000 LONG. RIVER CODE RIVER MILE	
DATE 05/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51832) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% DEBRIS [3 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Tatal of Bassactana of	
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
0 2C	11
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): U.30 Which is information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland U Conservation Tillage Immature Forest, Shrub or Old V V Urban or Industrial	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Urban or Industrial Field Open Pasture Row Completed RIPARIAN ZONE AND FLOODPLAIN QUALITY Urban or Industrial Field	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Ci	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Ci	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Open Pasture, Row Completed Open Pasture, Row Completed RIPARIAN ZONE AND FLOODPLAIN QUALITY A None Field Open Pasture, Row Completed Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Conservation Tillage None Fenced Pasture Mining or Construction COMMENTS	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOOMENTS FLOOR REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10m Moderate 5-10m Residential, Park, New Field Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitten	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY *\(\frac{1}{2}\) NOTE: River Left (L) and Right (R) as looking downstream *\(\frac{1}{2}\) RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Conservation V None Fenced Pasture Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitten Stream Flowing Subsurface flow with isolated pools (Interstitial) V Dry channel, no water (Ephemeral)	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Construction Open Pasture, Row Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH **FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN ZONE AND FLOODPLAIN QUALITY Whoderate 5-10m Residential, Park, New Field Open Pasture, Row Completed Open Pasture, Row Completed None FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Construction Open Pasture, Row Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	rop t)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.8 feet Channelized/Type: No/Natural OHWM Depth: 0.1 feet **Ephemeral USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes **Evaluation Score:** Watershed Area: 0.04 sq mi 57 **Predominant Sub:** Cobble/sand Legal Drain (Y/N): Ν

UTME: 1776170 ft **UTMN**: 14268272 ft

Stream S5-S185a – Class II PHWH						
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres						
4	666	0.03	2.43			
5	666	0.03	2.42			
6	434	0.02	1.53			
7	243	0.01	0.67			
8	439	0.02	1.55			
RPA 8	380	0.02	1.32			

Description of Potential Impact:

Impacts to S5-S185a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of cobble, sand, gravel, and silt. There is a wide riparian corridor along both banks of this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S185a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

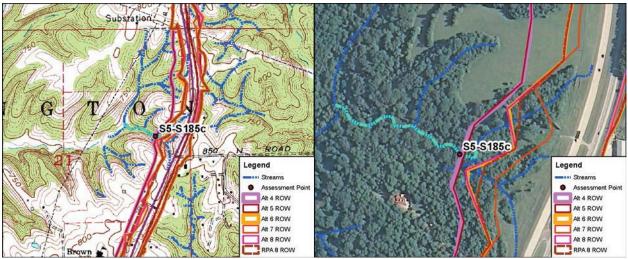


1000 11 5	THIEF GOOTE (Sum of metrics 1, 2, 3)	
SITE NAME/LOCATION I-69 Section 5	05 0405-	
OTTE NOMBER	S5-S185a RIVER BASIN White River DRAINAGE AREA (mi²) 0.0	14
LENGTH OF STREAM REACH (ft) 200	LAT. 39.28918 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Roger	rs COMMENTS (Long: -86.52019) (Natural-Class II)	
NOTE: Complete All Items On This For	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc	ctions
STREAM CHANNEL NONE / NA MODIFICATIONS:	ATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO	VERY
	very type of substrate present. Check ONLY two predominant substrate TYPE boxes	
,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE Metri
TYPE BLDR SLABS [16 pts]		Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	
BEDROCK [16 pt]		Substra
COBBLE (65-256 mm) [12 pts]	40% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	19% MUCK [0 pts] 0%	22
SAND (<2 mm) [6 pts]	22% ARTIFICIAL [3 pts] 0%	~~
Total of Percentages of	40.00% (A) Substrate Percentage (B) (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock _ SCORE OF TWO MOST PREDOMINATE SUB:		
SCORE OF TWO MOST PREDOMINATE SUB	STRATE TYPES: 10 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
	· · · · · · · · · · · · · · · · · · ·	Pool Dep
evaluation. Avoid plunge pools from roa> 30 centimeters [20 pts]	ad culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 6	
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check <i>ONLY</i> one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW - 1.8' / 0.1'	AVERAGE BANKFULL WIDTH (meters): 2.10	20
DIDADIAN ZONE AND ELOOD	This information must also be completed	
RIPARIAN ZONE AND FLOOD I RIPARIAN WIDTH	PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	
==		
None COMMENTS	Fenced Pasture Mining or Construction	
ELOW PEGIME (At Time of Eve	valuation) (Check ONLY one box):	
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated po	ools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS_		
SINUOSITY (Number of bends	per 61 m (200 ft) of channel) (Check ONLY one box):	
☐ None ☑	1.0 2.0 3.0	
0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100	ft)

ADDITIONAL STRE	EAM INFORMATION (This Information M	Must Also b	e Completed):		55-	STOS
QHEI PEI	RFORMED? - Yes No QHEI Sc	ore	(If Yes, Atta	ich Completed QHEI Fo	rm)	
	FREAM DESIGNATED USE(S) Beanblossom Creek			_ Distance from Evalua _ Distance from Evalua _ Distance from Evalua	ted Stream _	
MAPPING	G: ATTACH COPIES OF MAPS, INCLUDIN	G THE <u>ENTI</u>	RE WATERSHED	AREA. CLEARLY MAF	RK THE SITE LOCATION	N
USGS Quadrangle	Name: Modesto	\	IRCS Soil Map F	age: 8 NRCS So	oil Map Stream Order	
County: Monroe		_ Township	o / City: Washi	ngton		
MISCELL Base Flow Conditio Photograph Informa		ition:0	5/11/06	Quantity: 0.6	0	
Elevated Turbidity?	N	60%				
-	ected for water chemistry? (Y/N): N		ample no orid a	and attach results) Lab N	dumber:	
Field Measures:	Temp (°C) Dissolved Oxygen (n ch representative of the stream (Y/N) Y	If not, ple	ease explain:	Conductivity (µ		
Performed? (Y/N): _ Fish Observed? (Y/ Frogs or Tadpoles (Comments Regardi	ID number. Include appropriate N) Voucher? (Y/N) Salam Observed? (Y/N) Voucher? (Y/N)	anders Obs Aquatic	erved? (Y/N) Macroinvertebrat	Voucher? (Y/N) les Observed? (Y/N) REACH (This must	Voucher? (Y/N) be completed):	
FLOW →	See Stream Assessmer S5-S185a for site to					



aerial photograph, and resource photographs



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS Quadrangle:** Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 21 Quarter: NE Township: T10N Range: R1W IDEM 303(d) List: N/A 05120202010 **OHWM Width:** Watershed: 1.8 feet Channelized/Type: No/Natural **OHWM Depth:** 0.1 feet **Ephemeral USCOE** Jurisdiction: **Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 57 Watershed Area: 0.04 sq mi Cobble/sand Legal Drain (Y/N): Ν **Predominant Sub:**

UTME: 1776026 ft **UTMN**: 14268157 ft

Stream S5-S185c – Class II PHWH						
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acr						
4	110	0.01	0.44			
5	94	0.01	0.36			
6	0	0.00	0.11			
7	0	0.00	0.00			
8	0	0.00	0.13			
RPA 8	0	0.00	0.01			

Description of Potential Impact:

Impacts to S5-S185c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of cobble, sand, gravel, and silt. There is a wide riparian corridor along both banks of this stream where Alternatives 4 and 5 cross this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S185c are on the second page of this form.



Photograph Taken Upstream



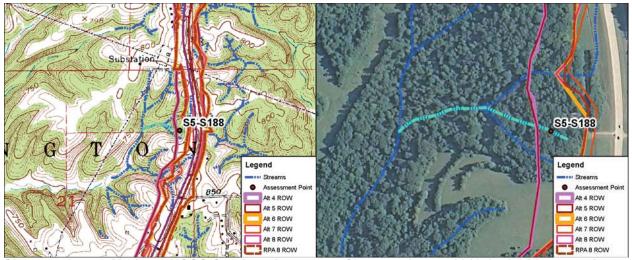
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S185C RIVER BASIN White River DRAINAGE ARE	A (mi²) 0.04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.28887 LONG. RIVER CODE RIVE	R MILE
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.52070) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams'	for Instructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT O MODIFICATIONS:	R NO RECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYP	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & TYPE PERCENT TYPE PERCENT	NT Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 19%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% FINE DETRITUS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts] ■ CLAY or HARDPAN [0 pt]	Max = 40
GRAVEL (2-64 mm) [9 pts] 19% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 22% ARTIFICIAL [3 pts] 0%	22
Tatal of Research see of (A)	
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 18 TOTAL NUMBER OF SUBSTRATE TYPES:	4
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time and evaluation Avaid plungs people from read evaluation as starre water pines).	Pool Depth Max = 30
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Wax - 30
> 22.5 - 30 cm [30 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters):	6
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.8' / 0.1' AVERAGE BANKFULL WIDTH (meters)	2.10 20
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}NOTE: River Left (L) and Right (R) as looking downst	ream ☆
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	ı Tillage
Moderate 5-10m Immature Forest, Shrub or Old Urban or Ind	ustrial
Narrow <5m Residential, Park, New Field Open Pastur	e, Row Crop
None Fenced Pasture Mining or Co	nstruction
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (II	ntermittent)
Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	
0.5	
_ STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Se	evere (10 ft/100 ft)

ADDITIONAL STRE	AM INFORMATION (This Information I	Must Also	be Completed):		S5-S1850
	RFORMED? - Yes V No QHEI So			ach Completed QHEI Forn	n)
			(1 0 0, 7 1		,
	REAM DESIGNATED USE(S) eanblossom Creek			Distance from Evaluate	ed Stream
CWH Name:				Distance from Evaluate	_
EWH Name:				Distance from Evaluate	ed Stream _
MAPPING	: ATTACH COPIES OF MAPS, INCLUDIN	IG THE ENT	TIRE WATERSHED	AREA. CLEARLY MARK	(THE SITE LOCATION
USGS Quadrangle N	Name: Modesto		NRCS Soil Map F	Page: 8 NRCS Soil	Map Stream Order
County: Monroe		Townsh	ip / City: Washi	ngton	
MISCELL	ANEOUS				
Base Flow Condition	ns? (Y/N):_N Date of last precipita	ation:	05/11/06	Quantity: 0.60	
Photograph Information	tion:				
Elevated Turbidity?	(Y/N): N Canopy (% open):	60%			
Were samples collection	cted for water chemistry? (Y/N): _N	_(Note lab	sample no. or id. a	and attach results) Lab Nu	umber:
Field Measures:	Temp (°C) Dissolved Oxygen (n	ng/l)	pH (S.U.)	Conductivity (µm	hos/cm)
Is the sampling reac	h representative of the stream (Y/N)	If not, p	lease explain:		
Additional comments	s/description of pollution impacts:				
BIOTIC E	EVALUATION				
Performed? (Y/N): _	N (If Yes, Record all observations	s. Voucher	collections optional	I. NOTE: all voucher samp	eles must be labeled with the site
	ID number. Include appropriat	e field data	sheets from the Pri	mary Headwater Habitat As	ssessment Manual)
Fish Observed? (Y/N	/		served? (Y/N)	Voucher? (Y/N)	Vauchar2 (V/N)
Frogs or Tadpoles C		Aquatio	c Macroinvertebrai	tes Observed? (Y/N)	Voucher? (Y/N)
Comments Regardir	ig biology.				
DRAV	VING AND NARRATIVE DESCR	IPTION (OF STREAM R	PEACH (This must h	ne completed):
	rtant landmarks and other features of in			-	
	Gaa Gharasa 7	L =	_		
FLOW T	See Stream Assessmen				
	S5-S185c for site to		_		
•	aerial photograph, a	nd res	source pho	otographs	





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.5 feet Channelized/Type: No/Natural OHWM Depth: 0.4 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 37 Watershed Area: 0.09 sq mi **Predominant Sub:** Gravel/leaf pack Legal Drain (Y/N): Ν

Stream S5-S188 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	177	0.01	1.15
5	174	0.01	1.16
6	0.00	0.00	0.01
7	0.00	0.00	0.00
8	0.00	0.00	0.01
RPA 8	0.00	0.00	0.01

Description of Potential Impact:

Impacts to S5-S188 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate is predominately gravel, leaf pack, and sand. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S188 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



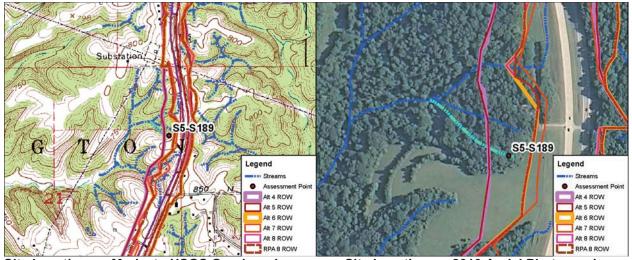
SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S188 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29154 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.51915) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERING RECENT OR NO RECOVERED NO.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 10%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0%	17
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 6	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3 0 m - 4 0 m (> 9' 7" - 13') [25 nts]	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.46 This information must also be completed	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.46 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) V Wide >10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.46 AVERAGE BANKFULL WIDTH (meters): 0.46 L R (Most Predominant per Bank) V Wide >10m Moderate 5-10m V V Wide Prove the first provided the provided	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.46 AVERAGE BANKFULL WIDTH (meters): 0.46 L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Vide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.46 AVERAGE BANKFULL WIDTH (meters): 0.46 AVERAGE BANKFULL WIDTH (meters): 0.46 L R (Most Predominant per Bank) L R (Most P	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.46 CONSERVATION MIDTH L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10mmature Forest, Wetland Moderate 5-10m None COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.46 AVERAGE BANKFULL WIDTH (meters): 0.47 AVERAGE BANK	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS 2nd growth woods + shrubs laver FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	5
COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream in the last of the las	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10 Moderate 5-10m Narrow <5m None COMMENTS Residential, Park, New Field None COMMENTS Residential, Park, New Field Residential, Park, New Field Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None AVERAGE BANKFULL WIDTH (meters): 0.46 AVERAGE BANKFULL WID	5
COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY XNOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS 2nd growth woods + shrubs laver FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10 Moderate 5-10m Narrow <5m None COMMENTS Residential, Park, New Field None COMMENTS Residential, Park, New Field Residential, Park, New Field Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None AVERAGE BANKFULL WIDTH (meters): 0.46 AVERAGE BANKFULL WID	5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N):_N _ Date of last precipitation: 05/11/06 _ Quantity:_ 0.60
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 60%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
PIOTIC EVALUATION
BIOTIC EVALUATION N
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form

FLOW -

S5-S188 for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.5 feet Channelized/Type: No/Natural OHWM Depth: 0.4 feet Stream Type: **Ephemeral USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 29 Watershed Area: 0.01 sq mi Ν **Predominant Sub:** Sand/gravel Legal Drain (Y/N):

UTME: 1776500 ft **UTMN**: 14268962 ft

Stream S5-S189 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	142	0.01	0.46
5	140	0.01	0.46
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S189 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate is predominately sand, gravel, and silt. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S189 are on the second page of this form.



Photograph Taken Upstream

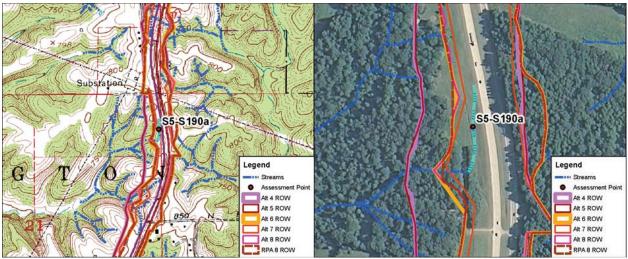


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S189 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29107 LONG. RIVER CODE RIVER MILE	
DATE 05/11/06 SCORER A Rogers COMMENTS (Long: -86.51901) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 19%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] O% LEAF PACK/WOODY DEBRIS [3 pts] O% FINE DETRITUS [3 pts] O%	Substrate
COBBLE (65-256 mm) [12 pts] 19% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	19
SAND (<2 mm) [6 pts] 40% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 2	
2 DANK FULL MIDTU (Macausad on the country of 2.4 macausanata) (Check ON Verse box)	
3 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.70	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m None Pasture Pow Conservation Tillage Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5-10m None Pasture Pow Conservation Tillage Immature Forest, Shrub or Old	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN COMPANIENT	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Immature Forest, Shrub or Old Immature Forest, Shrub or Old Narrow <5m Residential, Park, New Field Open Pasture, Row Comments (2nd growth woods + shrubs laver FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream in the completed in the complete in the	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Mide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS 2nd growth woods + shrubs laver FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Beanblossom Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION NECS Quadrangle Name: Modesto NECS Soil Map Page: 8 NECS Soil Map Stream Order
Machineten
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): N Date of last precipitation: 05/11/06 Quantity: 0.60
Photograph Information:
Elevated Turbidity? (Y/N): Canopy (% open):50%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form
S5-S189 for site topographic map,
aerial photograph, and resource photographs



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 21 Quarter: NE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 1.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet **USCOE Jurisdiction: Stream Type:** Ephemeral No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No **Evaluation Score:** Watershed Area: 12

Evaluation Score:12Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1776690 ft **UTMN**: 14269657 ft

	Stream S5-S190	a – Modified Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	459	0.01	0.37
5	459	0.01	0.37
6	459	0.01	0.37
7	459	0.01	0.33
8	459	0.01	0.37
RPA 8	459	0.01	0.37

Description of Potential Impact:

Impacts to S5-S190a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S190a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

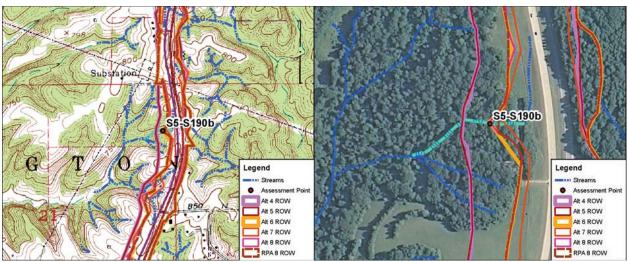


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S190a RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29298 LONG. RIVER CODE RIVER MILE	
DATE 05/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51833) (Concrete Gutter-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	7
SAND (<2 mm) [6 pts]	L
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Moderate 5-10m Field Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	p
✓ None	
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS	
CINILOCITY (Number of heads par 61 to (200 ft) of channel). (Chadr ONI V and heat)	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	_
☑ None ☐ 1.0 ☐ 2.0 ☐ 3.0	L
None 1.0 2.0 3.0 3.0 5.1.5 2.5	L
☑ None ☐ 1.0 ☐ 2.0 ☐ 3.0)O ft)

ADDITIONAL STREAM	INFORMATION (This Information M	Must Also be Completed):		S5-S190a
QHEI PERFO	RMED? - Yes ✓ No QHEISc	ore(If Yes, Atta	ach Completed QHEI Form)	
WWH Name: Bean	AM DESIGNATED USE(S) blossom Creek		Distance from Evaluated Stream	
CWH Name:EWH Name:			_ Distance from Evaluated Stream _	
EWH Name			_ Distance from Evaluated Stream _	
	TTACH COPIES OF MAPS, INCLUDIN	G THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE	LOCATION
USGS Quadrangle Nam	ne: Modesto	NRCS Soil Map F	Page: NRCS Soil Map Strea	m Order
County: Monroe		Township / City: Washi	ington	
MISCELLANI	Eous			
Base Flow Conditions?	(Y/N):_Y Date of last precipita	tion: 04/24/12	Quantity: 0.15	
Photograph Information	:			
Elevated Turbidity? (Y/N	N): _ N Canopy (% open):	100%		
Were samples collected	for water chemistry? (Y/N):	(Note lab sample no. or id.	and attach results) Lab Number:	
Field Measures: Ten	np (°C) Dissolved Oxygen (m	ng/l) pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach re	epresentative of the stream (Y/N) Y	If not, please explain:		
Additional comments/de	escription of pollution impacts:			
BIOTIC EVA Performed? (Y/N):N Fish Observed? (Y/N) Frogs or Tadpoles Obsection Comments Regarding E	(If Yes, Record all observations ID number. Include appropriate Voucher? (Y/N) N Salam erved? (Y/N) N	e field data sheets from the Pr		Manual)
	IG AND NARRATIVE DESCR t landmarks and other features of in		<u> </u>	•
FLOW -	See Stream Assessm S5-S190a for site		р,	



aerial photograph, and resource photographs



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 6.0 feet Channelized/Type: No/Natural OHWM Depth: 1.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** Watershed Area: 0.01 sq mi 77

Evaluation Score: 77 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Boulders/boulder slabs

UTME: 1776489 ft **UTMN**: 14269420 ft

	Stream S5-S	S190b – Class III PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	327	0.05	1.46
5	331	0.05	1.48
6	175	0.02	0.63
7	102	0.01	0.35
8	176	0.02	0.59
RPA 8	135	0.02	0.52

Description of Potential Impact:

Impacts to S5-S190b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of boulders, boulder slabs, and sand. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S190b are on the second page of this form.



Photograph Taken Upstream



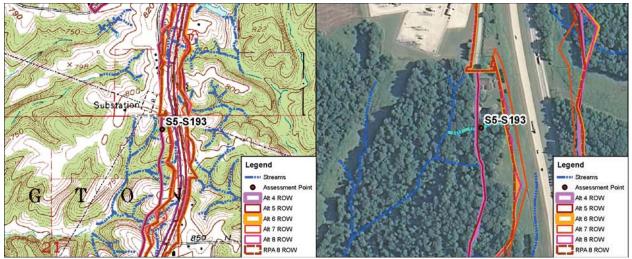
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S190b RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29233 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.51904) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] 35% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% SIND DETRITUS [3 pts] 0%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	37
Total of Percentages of 61 00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	20
COMMENTS MAXIMUM POOL DEPTH (centimeters): 35	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
	Bankful Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ARIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10 m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Onen Pasture Pow Conservation Tillage Immature Forest, Shrub or Old Field Onen Pasture Pow Conservation Pow Conservation Field	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) ✓ Wide >10 Moderate 5-10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Urban or Industrial	Width Max=30
Sank Full Width (Measured as the average of 3-4 measurements) Check ONLY one box):	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Another Eloopplain QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30 20
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH LR (Per Bank) Vide > 10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral))	Width Max=30 20
BANK FULL WIDTH (Measured as the average of 3-4 measurements) > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30 20
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Residential, Park, New Field Open Pasture, Row C Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30 20
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream Mature Forest, Wetland Conservation Tillage RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Immature Forest, Shrub or Old Urban or Industrial Open Pasture, Row Comments Narrow < 5m Residential, Park, New Field Open Pasture, Row Comments Mining or Construction Comments Mining or Construction Comments Mining or Construction Comments Comments Mining or Construction Comments Comments Mining or Construction Comments Mining or Construction Comments Comments	Width Max=30 20
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/1.2' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream* RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Conservation Tillage Moderate 5-10 m Mature Forest, Shrub or Old Wrban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Comments None Fenced Pasture Mining or Construction COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30 20 rop tt)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) V WWH Name: Beanblossom Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 5%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the substitution of the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Voucher
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form
S5-S190b for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto Stream Name: Unnamed Trib Beanblossom Ck Section: 21 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 2.5 feet Channelized/Type: No/Natural OHWM Depth: 0.8 feet Stream Type: **Ephemeral USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 48 Watershed Area: 0.01 sq mi **Predominant Sub:** Sand/silt Legal Drain (Y/N): Ν

UTME: 1776412 ft **UTMN**: 14270108 ft

Stream S5-S193 – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	145	0.01	0.70	
5	140	0.01	0.68	
6	0	0.00	0.05	
7	0	0.00	0.00	
8	0	0.00	0.04	
RPA 8	0	0.00	0.03	

Description of Potential Impact:

Impacts to S5-S193 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate is predominately sand, silt, and fine detritus. There is a wide riparian corridor on the left bank and a narrow riparian buffer along the right bank where Alternatives 4 and 5 cross this stream. The adjacent floodplain consists of immature forest on the left and residential on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S193 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



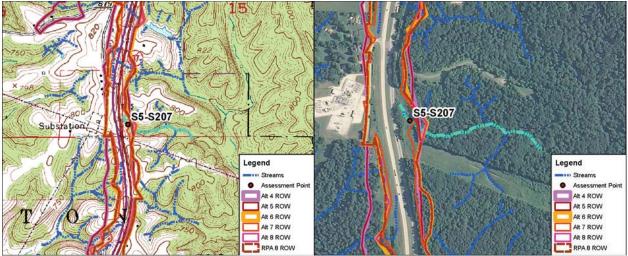
SITE NAME/LOCATION I-69 Section 5			
SITE NUMBER S5-S193 RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01		
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29422 LONG. RIVER CODE RIVER MILE			
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.51930) (Natural-Class II)			
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions		
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED	OVERY		
MODIFICATIONS:			
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes			
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric		
TYPE PERCENT TYPE PERCENT □ □ BLDR SLABS [16 pts] 0% □ ✓ SILT [3 pt] 34%	Points		
BOULDER (>256 mm) [16 pts]	Substrat		
□ BEDROCK [16 pt] 0% □ FINE DETRITUS [3 pts] 25% □ COBBLE (65-256 mm) [12 pts] 5% □ CLAY or HARDPAN [0 pt] 0%	Max = 40		
GRAVEL (2-64 mm) [9 pts] OW MUCK [0 pts] OW OW OW OW OW OW OW OW OW O	42		
SAND (<2 mm) [6 pts]	13		
Total of Percentages of 5.00% (A) Substrate Percentage Check 100%	A + B		
Bldr Slabs, Boulder, Cobble, Bedrock			
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep		
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30		
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] < 5 cm [5 pts]			
□ > 10 - 22.5 cm [25 pts] □ NO WATER OR MOIST CHANNEL [0 pts]	30		
COMMENTS MAXIMUM POOL DEPTH (centimeters): 25			
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful		
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width		
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30		
COMMENTS OHW = 2.5'/0.8' AVERAGE BANKFULL WIDTH (meters): 0.80	5		
This information must also be completed			
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY			
L R (Per Bank) L R (Most Predominant per Bank) L R			
✓ Wide >10m ✓ Mature Forest, Wetland ✓ Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial			
Field - Open Pasture Row Cro	nn.		
Residential, Park, New Field	P		
None Fenced Pasture Mining or Construction COMMENTS			
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):			
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)			
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)			
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None None Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) (Check ONLY one box): 2.0 3.0			
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):			
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None None Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) (Check ONLY one box): 2.0 3.0	-		

ADDITIONAL OTDEAM INFORMATION (This Left word) and Alexander	S5-S193
ADDITIONAL STREAM INFORMATION (This Information Must Also	be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Beanblossom Creek	_ Distance from Evaluated Stream
CWH Name: _	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EN	ITIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Towns	hip / City: Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last precipitation:	10/13/11 Quantity: 0.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 10%	6
Were samples collected for water chemistry? (Y/N): N (Note lab	sample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not,	please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Vouche	r collections optional. NOTE: all voucher samples must be labeled with the sit
ID number. Include appropriate field data	sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders O	bserved? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquat	ic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION	OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for	site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S193 for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Payne Hollow

Quarter: SW
Range: R1W
Watershed: 05120202010
Channelized/Type: No/Natural

Channelized/Type: No/Natural Stream Type: Evaluation Type: HHEI

Evaluation Score: 33 Legal Drain (Y/N): N

UTME: 1776838 ft **UTMN**: 14270651 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	5.0 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: Sand/silt

Stream S5-S207 – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	326	0.04	0.58	
5	315	0.04	0.55	
6	400	0.05	0.89	
7	251	0.03	0.44	
8	399	0.05	0.87	
RPA 8	302	0.03	0.50	

Description of Potential Impact:

Impacts to S5-S207 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand, silt, and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S207 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



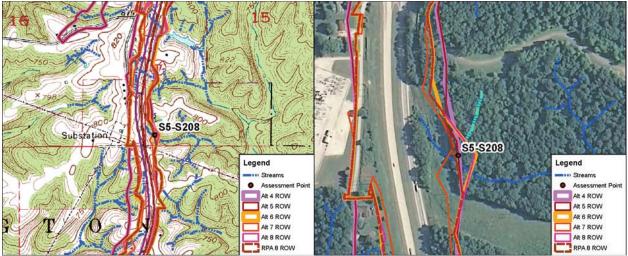
	THIEF COOLS (Sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER_S	85-S207 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	01
LENGTH OF STREAM REACH (ft) 200	LAT. 39.29571 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KS	COMMENTS (Long: -86.51779) (Natural-Class I)	
	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ıctions
NOTE: Complete All Items On This Form	in - Neier to Theid Evaluation manual for Onio 31 HWT Offeams for mode	ictions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECO	OVERY
1. SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
, , ,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE Metri
TYPE PI BLDR SLABS [16 pts]	PERCENT TYPE PERCENT 0% Image: SILT [3 pt] 20%	Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 5%	
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts]	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%	IVIAX - 4
GRAVEL (2-64 mm) [9 pts]	15% MUCK [0 pts] 0%	13
SAND (<2 mm) [6 pts]	60% ARTIFICIAL [3 pts] 0%	
Total of Percentages of 0	0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS		
SCORE OF TWO MOST FREDOMINATE SUBS	TOTAL NUMBER OF SUBSTRATE TIPES. 4	
- ,		Pool Dep
evaluation. Avoid plunge pools from road > 30 centimeters [20 pts]	ad culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfu Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW = 5'/0.9'	AVERAGE BANKFULL WIDTH (meters): 1.52	20
	AVERAGE BANK GEE VIIB III (IIIctors).	20
	This information much by the state of	
RIPARIAN ZONE AND FLOODP	This information <u>must</u> also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
Vide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5-10m	Field Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	р
None None	Fenced Pasture Mining or Construction	
COMMENTS Power Lines		
FLOW REGIME (At Time of Eva	aluation) (Check ONLY one box):	
Stream Flowing `	Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated poo	ols (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS_		
SINUOSITY (Number of ben <u>ds</u> p	per 61 m (200 ft) of channel) (Check ONLY one box):	
None 0.5	1.0 1.5 2.0 3.0 >3	
U.J	1.0	
STREAM GRADIENT ESTIMATE		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100	O ft)

ADDITIONAL STREAM INFORMATION (This Information Must	S5-S207
QHEI PERFORMED? - Yes ✓ No QHEI Score	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Payne Hollow	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING TH	HE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe	Fownship / City:
MISCELLANEOUS	
Base Flow Conditions? (Y/N):Y Date of last precipitation:	10/13/11 Quantity: 0.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open):	10%
Were samples collected for water chemistry? (Y/N): N (No	ote lab sample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field Fish Observed? (Y/N) N Voucher? (Y/N) Salamand	oucher collections optional. NOTE: all voucher samples must be labeled with the site d data sheets from the Primary Headwater Habitat Assessment Manual) ers Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) Voucher? (Y/N)
	ION OF STREAM REACH (This <u>must</u> be completed): est for site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S207 for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Modesto

15

T10N

3.0 feet

0.3 feet

N/A

Aquatic Resource: Stream **USGS** Quadrangle: **Stream Name:** Unnamed Trib. Payne Hollow Section: Quarter: SW Township:

Range: R1W IDEM 303(d) List: Watershed: 05120202010 OHWM Width: Channelized/Type: No/Natural OHWM Depth: Ephemeral **USCOE Jurisdiction: Stream Type:** Yes

Evaluation Type: HHEI **IDEM Jurisdiction:** Yes 0.01 sq mi **Evaluation Score:** Watershed Area: 21 **Predominant Sub:** Legal Drain (Y/N): Ν Gravel/silt

UTME: 1776929 ft **UTMN:** 14270626 ft

Stream S5-S208 – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	41	0.01	0.01	
5	25	0.01	0.00	
6	109	0.01	0.04	
7	0	0.00	0.00	
8	106	0.01	0.04	
RPA 8	0	0.00	0.00	

Description of Potential Impact:

Impacts to S5-S208 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel, silt, and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S208 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

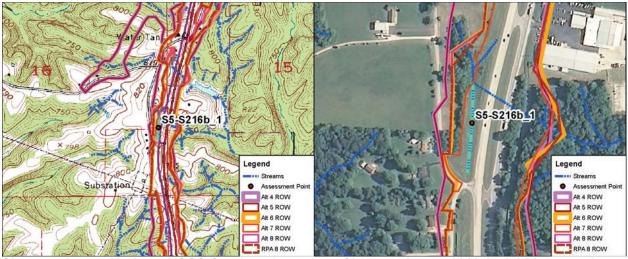


SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S208 RIVER BASIN White River DRAINAGE AREA (mi²)	
THE MONIBER THE PROPERTY OF TH	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29564 LONG. RIVER CODE RIVER MILE	
DATE 10/17/11 SCORER DEW/KSS COMMENTS (Long: -86.51747) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
(Max of 52). Add total number of significant substrate types found (Max of 6). Final metric score is sum of boxes A & B. TYPE PERCENT PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 30% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 10%	Points
BEDROCK [16 pt] BEDROCK [16 pt] D'A FINE DETRITUS [3 pts] 0%	Substrate Max = 40
COBBLE (65-256 mm) [12 pts]	IVIAX = 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0% 0%	16
Total of Percentages of Ongo, (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 100% SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	^.5
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 3'/0.3' AVERAGE BANKFULL WIDTH (meters): 1.00	5
This information must also be completed RIPARIAN ZONE AND FLOODELAIN OUALITY STANDTE: River Left (L) and Right (R) as looking downstreams?	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5-10m Moderate 5-10m Work Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) U Wetland Urban or Industrial	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) I Moderate 5-10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Onen Pasture Row Conservation Onen Pasture Row Conservation	rop
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ADDITIONAL STR	REAM INFORMATION (This Information Must Als	so be Completed):		55-5208
QHEI P	ERFORMED? - Yes V No QHEI Score	(If Yes, Atta	ch Completed QHEI Form)	
	STREAM DESIGNATED USE(S) Payne Hollow		_ Distance from Evaluated Stre	am _
	NC. ATTACH CODIES OF MADE INCLUDING THE		Distance from Evaluated Stre	
	NG: ATTACH COPIES OF MAPS, INCLUDING THE EN Name: Modesto			
Manros		NRCS Soil Map Pa		Stream Order _
County.		nship / City: washir		
Base Flow Conditi	LANEOUS ions? (Y/N):_Y Date of last precipitation:	10/13/11	Quantity: 0.25	
Photograph Inforn				
Elevated Turbidity	N	%		
Were samples col	lected for water chemistry? (Y/N): (Note la	ab sample no. or id. a	and attach results) Lab Number:	
Field Measures:		pH (S.U.)	Conductivity (µmhos/cr	n)
	ach representative of the stream (Y/N) If no	t, please explain:		
Performed? (Y/N) Fish Observed? (ID number. Include appropriate field da Y/N) N Voucher? (Y/N) N Salamanders S Observed? (Y/N) N Voucher? (Y/N) Aqui	ta sheets from the Prin	mary Headwater Habitat Assessm Voucher? (Y/N)	
	See Stream Assessment Fo	or site evaluation and	· ——	
	S5-S208 for site topogra aerial photograph, and r		ntographs	
	aeriai photograph, and r	esource pno	rographs	

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Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto **Stream Name:** Unnamed Trib. Payne Hollow Section: 16 Quarter: SE Township: T10N Range: R1W IDEM 303(d) List: N/A 05120202010 OHWM Width: Watershed: 1.2 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet Stream Type: Ephemeral **USCOE Jurisdiction:** No **Evaluation Type:** HHEI **IDEM Jurisdiction:** No 12

Evaluation Score:12Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1776531 ft UTMN: 14271815

Stream S5-S216b_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	472	0.01	0.33	
5	472	0.01	0.33	
6	472	0.01	0.33	
7	465	0.01	0.16	
8	472	0.01	0.33	
RPA 8	472	0.01	0.33	

Description of Potential Impact:

Impacts to S5-S216b_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located in between SR 37 and North Crossover Road. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW along both sides of this artificial channel. No photographs are available at this time.



Photograph Taken Upstream



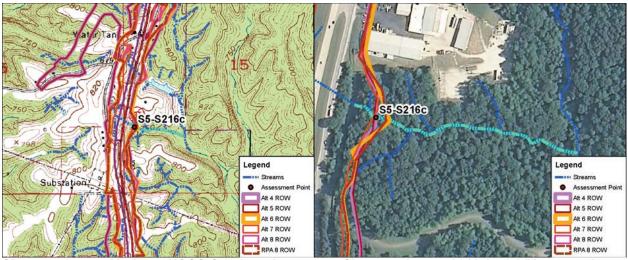
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S216b_1 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29891 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51885) (Concrete Gutter-Modified Class	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ıctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING RECENT OR NO RECOVERED RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] DW Substrate present. Check ONLY two predominant substrate TYPE boxes TYPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] DW SILT [3 pt] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	HHEI Metric Points Substrate Max = 40
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 6.55 70 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	A - 2
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] V NO WATER OR MOIST CHANNEL [0 pts]	Pool Depth Max = 30
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankfull Width Max=30
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	p
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 2.5	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	0 ft)

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Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Control Unnamed Trib. Payne Hollow Section Townsh

Range: R1W
Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral

Evaluation Type: HHEI Evaluation Score: 76
Legal Drain (Y/N): N

UTME: 1776941 ft **UTMN**: 14271774 ft

USGS Quadrangle: Modesto Section: 15 Township: T10N IDEM 303(d) List: N/A 6.1 feet OHWM Width: OHWM Depth: 1.5 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.03 sq mi Bedrock/gravel **Predominant Sub:**

Stream S5-S216c – Class III PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	138	0.02	0.59	
5	130	0.02	0.57	
6	206	0.03	0.81	
7	125	0.02	0.53	
8	193	0.03	0.81	
RPA 8	193	0.03	0.80	

Description of Potential Impact:

Impacts to S5-S216c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate is predominately bedrock and gravel. There is a wide riparian corridor associated with both banks of this stream, downslope of the utility line ROW. The adjacent floodplain consists primarily of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S216c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

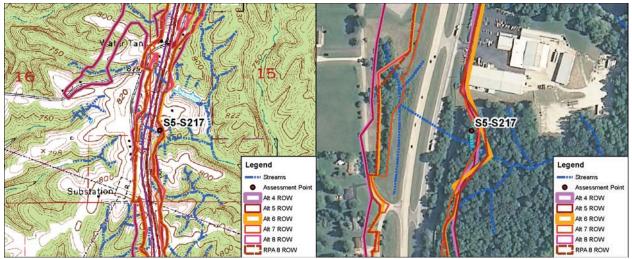


SITE NAME/LOCATION I-69 Section 5			
SITE NUMBER SS-S216c RIVER BASIN White River DRAINAGE AREA (mi²)	0.03		
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29879 LONG. RIVER CODE RIVER MILE			
DATE 05/11/06 SCORER A Rogers (Long: -86.51740) (Natural-Class III)			
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions		
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY		
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	ı HHEI		
TYPE PERCENT TYPE PERCENT	Metric		
BLDR SLABS [16 pts]	Foliti		
BEDROCK [16 pt] 60% FINE DETRITUS [3 pts] 0%	Substrat Max = 4		
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	IVIAX - 4		
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	31		
Ortho (12 mm) [o pto]			
Total of Percentages of 70.00% (A) Substrate Percentage Check 100% (B)	A + B		
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 25 TOTAL NUMBER OF SUBSTRATE TYPES: 6			
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep		
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3		
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]			
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25		
COMMENTS MAXIMUM POOL DEPTH (centimeters): 21			
	1		
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful		
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 6.1' / 1.5' AVERAGE BANKFULL WIDTH (meters): 2.50 This information must also be completed	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 6.1' / 1.5' AVERAGE BANKFULL WIDTH (meters): 2.50 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	Width Max=30		
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> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [Width Max=30		
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> 4.0 meters (> 13') [30 pts]	Width Max=30		
> 4.0 meters (> 13') [30 pts]	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 6.1' / 1.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5-10 m Immature Forest, Shrub or Old Urban or Industrial Narrow <5 m Residential, Park, New Field Open Pasture, Row Completed Narrow <5 m Residential, Park, New Field Open Pasture, Row Completed None Fenced Pasture Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitten) Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 6.1' / 1.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 10 m (x=3' 3") [5 pts] Z 50 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (x=3' 3") [5 pts] Z 7 Wide > 1.0 m (x=3' 3") [5 pts] Z 8 VERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) Wide > 10 m (x=3' 3") [5 pts] Z 1.0 m (x=3' 3") [5 pts] Z 1.0 m (x=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (x=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Z 50 This information must also be completed RIPARIAN WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFU	Width Max=30		
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> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] COMMENTS OHW - 6.1' / 1.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5-10 m Residential, Park, New Field Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	Width Max=30		
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 6.1' / 1.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m	Width Max=30 20 rop tt)		

ADDITIONAL STREAM	ングラースター S5ースター M INFORMATION (This Information Must Also be Completed):	116C
	ORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTRE	EAM DESIGNATED USE(S)	
WWH Name: Payi		
CWH Name:	Distance from Evaluated Stream	
EWH Name: _	Distance from Evaluated Stream	
MAPPING: A	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Na	me: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream Order	1
County: Monroe	Township / City: Washington	
MISCELLAN	NEOUS	
Base Flow Conditions?		_
Photograph Information	n: 17 Upstream / 18 Downstream / 19 Right Bank / 20 Left Bank	
Elevated Turbidity? (Y/	/N): N Canopy (% open): 40%	
Were samples collecte	ed for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Te	pmp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (μmhos/cm)	
Is the sampling reach r	representative of the stream (Y/N) If not, please explain:	
Additional comments/d	description of pollution impacts:	
BIOTIC EV	ALUATION	
Performed? (Y/N): _ N	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with	n the site
Г	ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	
Fish Observed? (Y/N)	Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)	
Frogs or Tadpoles Obs		
Comments Regarding	Biology:	
DDAWU	NC AND NADDATIVE DESCRIPTION OF STREAM REACH /This mount has no man left of	
	NG AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):	
Include importa	ant landmarks and other features of interest for site evaluation and a narrative description of the stream's local	tion
_	See Stream Assessment Form	
FLOW -	S5-S216c for site topographic map,	
	aerial photograph, and resource photographs	
	actiat photograph, and resource photographs	

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Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Payne Hollow

Quarter: SW Range: R1W 05120202010 Watershed:

Channelized/Type: No/Natural Stream Type: Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 70 Legal Drain (Y/N): Ν

UTMN: 14271885 ft **UTME**: 1776911 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.6 feet
OHWM Depth:	0.4 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Dradaminant Cub.	Dodrook/arov

Bedrock/gravel Predominant Sub:

Stream S5-S217 – Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	159	0.01	0.12
5	164	0.01	0.13
6	179	0.01	0.17
7	126	0.01	0.08
8	179	0.01	0.19
RPA 8	179	0.01	0.19

Description of Potential Impact:

Impacts to S5-S217 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of bedrock and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S217 are on the second page of this form.



Photograph Taken Upstream

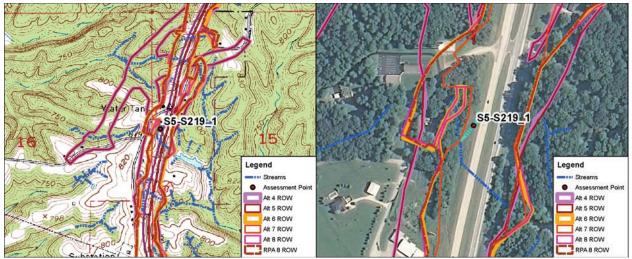


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S217 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 175 LAT. 39.29910 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51750) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
■ BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 5% ■ BEDROCK [16 pt] 50% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 35% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 5% ARTIFICIAL [3 pts] 0%	30
Grand (2 mm) [e pie]	
Total of Percentages of S1.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 25 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	25
✓ > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 13	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 2.6' / 0.4' AVERAGE BANKFULL WIDTH (meters): 1.40	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cr	op
None Fenced Pasture Mining or Construction	
COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)
) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) (Check ONLY one box): 2.0 3.0) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.5) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) (Check ONLY one box): 2.0 3.0	L

ADDITIONAL STREA	AM INFORMATION (This Information I	Must Also be Complete	ed):	S5-S21
QHEI PER	FORMED? - Yes No QHEI So	core(If Yes,	, Attach Completed QHEI Form)	
DOWNSTF WWH Name: Pa CWH Name:	yne Hollow		Distance from Evaluated Distance from Evaluated Distance from Evaluated	Stream _
MAPPING	ATTACH COPIES OF MAPS, INCLUDIN	IG THE ENTIRE WATERS	SHED AREA. CLEARLY MARK 1	THE SITE LOCATION
USGS Quadrangle N	ame: Modesto	NRCS Soil M	lap Page: 3 NRCS Soil N	1ap Stream Order
County: Monroe		Township / City: W	ashington	
Field Measures: T	s? (Y/N): N Date of last precipita	70% (Note lab sample no. on ph (S.U.) If not, please explain		os/cm)
			tional. NOTE: all voucher sample	
Fish Observed? (Y/N Frogs or Tadpoles Ol Comments Regarding) Voucher? (Y/N) Salam bserved? (Y/N) Voucher? (Y/N)	nanders Observed? (Y/N	Voucher? (Y/N)	Voucher? (Y/N)
	ING AND NARRATIVE DESCR		`	•
FLOW →	See Stream Assessme S5-S217 for site to aerial photograph,	pographic ma	_	



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Payne Hollow
Quarter: NW

Range: R1W
Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral Evaluation Type: HHEI Evaluation Score: 12

Legal Drain (Y/N): N

UTME: 1776883 ft **UTMN**: 14273271 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.2 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Artificial

Stream S5-S219_1 – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	186	0.01	0.05
5	186	0.01	0.05
6	186	0.01	0.05
7	186	0.01	0.05
8	186	0.01	0.05
RPA 8	186	0.01	0.05

Description of Potential Impact:

Impacts to S5-S219_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with either bank of this artificial channel. The floodplain consists of maintained INDOT ROW . Photographs taken upstream and downstream in the area where these Alternatives cross S5-S219_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



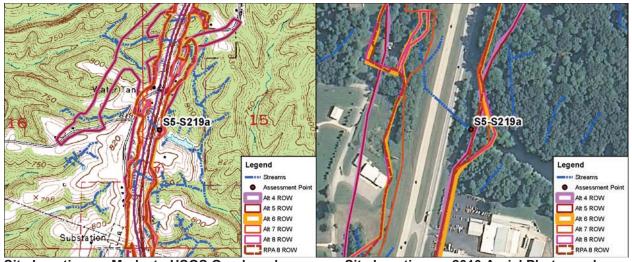
ChieFPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S219_1 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 185 LAT. 39.30290 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51758) (Concrete Gutter-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Insti-	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	7
SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 100%	<u> </u>
Total of Percentages of 0.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	l .
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Field	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr	op
None Fenced Pasture Mining or Construction	
COMMENTS	_
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Ory channel, no water (Ephemeral)	-)
COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent	-) L
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	-) <u> </u>
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS One of Evaluation (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	-) L
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	-) <u> </u>
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Ĺ

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Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Payne Hollow
Quarter: SW

Range: R1W
Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 57

Legal Drain (Y/N): N

UTME: 1777061 ft **UTMN**: 14272858 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.1 feet
OHWM Depth:	0.8 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Gravel/cobble

Stream S5-S219a – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	39	0.01	0.08
5	39	0.01	0.07
6	39	0.01	0.34
7	39	0.01	0.29
8	39	0.01	0.34
RPA 8	39	0.01	0.06

Description of Potential Impact:

Impacts to S5-S219a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and cobble. There is a narrow riparian corridor associated with this stream along both banks. The adjacent floodplain consists of old fields within the irregularly maintained utility line ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S219a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



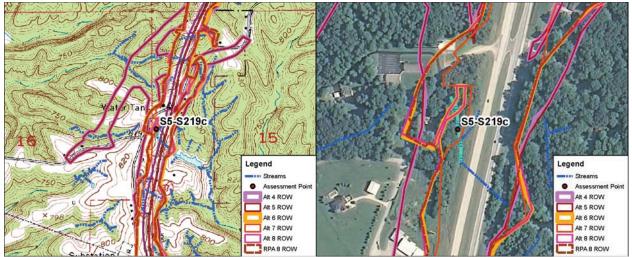
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S219a RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 35 LAT. 39.30177 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51696) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 5%	Substrate Max = 40
COBBLE (65-256 mm) [12 pts]	IVIAX - 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	27
Total of Percentages of Open (A) Substrate Percentage (B)	A : B
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 8	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 3.1' / 0.8' AVERAGE BANKFULL WIDTH (meters): 1.10	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	pp
None Fenced Pasture Mining or Construction	
COMMENTS COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS_	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 ✓ 0.5 1.5 2.5 >3	
STDEAM CDADIENT ESTIMATE	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM IN	FORMATION (This Information Must Also	be Completed):		55-5219a
QHEI PERFORM	MED? - Yes ✓ No QHEI Score	(If Yes, Attac	ch Completed QHEI Form	n)
DOWNSTREAM WWH Name: Payne H CWH Name:	DESIGNATED USE(S)		_ Distance from Evaluate Distance from Evaluate Distance from Evaluate	d Stream _
MAPPING: ATT	ACH COPIES OF MAPS, INCLUDING THE <u>EN</u>	ITIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name:	Modesto	NRCS Soil Map Pa	age: 8 NRCS Soil	Map Stream Order 1
County: Monroe	Towns	ship / City: Washin	gton	
MISCELLANEO	us			
Base Flow Conditions? (Y/	N):_Y Date of last precipitation:_	05/10/06	Quantity: 0.89	
Photograph Information:	209 Upstream / 210 Downstream / 211 Rig	jht Bank / 212 Left E	3ank	
Elevated Turbidity? (Y/N):	N Canopy (% open): 30%	/ 6		
Were samples collected fo	r water chemistry? (Y/N): N (Note lat	sample no. or id. a	nd attach results) Lab Nu	ımber:
Field Measures: Temp		pH (S.U.)	Conductivity (µml	nos/cm)
Is the sampling reach repre	esentative of the stream (Y/N) Y If not,	please explain:		
Additional comments/desc	ription of pollution impacts:			
				
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Observe Comments Regarding Biole	(If Yes, Record all observations. Voucher ID number. Include appropriate field data Voucher? (Y/N) Salamanders Ced? (Y/N) Voucher? (Y/N) Aqua		nary Headwater Habitat As Voucher? (Y/N)	
	AND NARRATIVE DESCRIPTION and marks and other features of interest for			
FLOW S!	ee Stream Assessment F 5-S219a for site topog erial photograph, and	raphic map		

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Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Payne Hollow

Quarter: SW Range: R1W Watershed: 05120202010

Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI

Evaluation Score: 29 Legal Drain (Y/N): Ν

UTME: 1776802 ft **UTMN:** 14273246 ft

USGS Quadrangle: Modesto Section: 15 Township: T10N IDEM 303(d) List: N/A OHWM Width: 3.5 feet OHWM Depth: 0.5 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Detritus/leaf pack **Predominant Sub:**

Stream S5-S219c – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	350	0.03	1.12	
5	350	0.03	1.12	
6	294	0.02	0.97	
7	120	0.01	0.37	
8	294	0.02	0.97	
RPA 8	350	0.03	1.12	

Description of Potential Impact:

Impacts to S5-S219c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of detritus and leaf pack. There is a moderately-wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of an old field and immature forest land. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S219c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

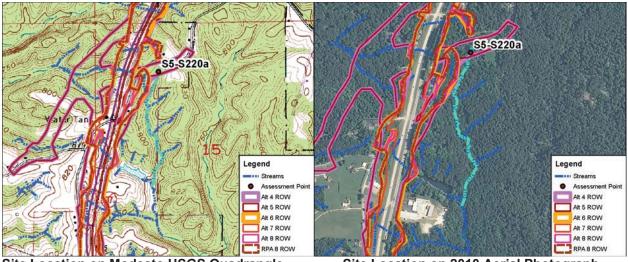


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S219c RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.30284 LONG. RIVER CODE RIVER MILE	
DATE 04/24/12 SCORER KSS COMMENTS (Long: -86.51786) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDR SLABS [16 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 15%	Point
BEDROCK [16 pt] BEDROCK [16 pt] O FINE DETRITUS [3 pts] 75%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ ARTIFICIAL [3 pts] ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	9
Total of Percentages of 0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfu
<pre></pre>	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 3.5'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.07	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	эр
None Fenced Pasture Mining or Construction	
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral))
COMMENTS	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 2.0 3.0 3.0 0.5 1.5 2.5 3.0	
STREAM GRADIENT ESTIMATE	
	00 ft)

ADDITIONAL STREA	.M INFORMATION (This Information I	Must Als	o be Completed):		S5-	-82190
QHEI PERF	FORMED? - Yes V No QHEISC	ore	(If Yes, Atta	ach Completed QHEI Form)		
DOWNSTR	EAM DESIGNATED USE(S)					
WWH Name: Pay	` ,			_ Distance from Evaluated St	ream 0.5	57
CWH Name: _				Distance from Evaluated Str	eam _	
EWH Name:				Distance from Evaluated Str	eam _	
	ATTACH COPIES OF MAPS, INCLUDIN	IG THE E	NTIRE WATERSHE	DAREA. CLEARLY MARK THE	SITE LOCATI	ON
USGS Quadrangle Na	ame: Modesto		NRCS Soil Map F	Page: NRCS Soil Map	Stream Order	· <u> </u>
County: Monroe		Town	nship / City: Washi	ngton		
MISCELLA	NEOUS					
Base Flow Conditions	? (Y/N):_Y Date of last precipita	ation:_	04/19/12	Quantity: 0.20		
Photograph Information	on:					
Elevated Turbidity? (\	//N):N Canopy (% open):	90	%			
Were samples collect	ed for water chemistry? (Y/N): _N	_ (Note la	ab sample no. or id.	and attach results) Lab Numbe	r:	
	emp (°C) Dissolved Oxygen (n	ng/l)	pH (S.U.)	Conductivity (µmhos/c	cm)	
Is the sampling reach	representative of the stream (Y/N) Y	If no	t, please explain:			
Additional comments/	description of pollution impacts:					
riddillenar commenter	docomplian or pollution impacto.					
DIOTIO EL	(AL LIATION	-				
	/ALUATION					
Performed? (Y/N): _			•	 NOTE: all voucher samples m imary Headwater Habitat Assess 		with the site
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salam	nandare (Observed? (Y/N) N	Voucher? (Y/N) N		
Frogs or Tadpoles Ob					ucher? (Y/N)	
Comments Regarding	Biology:					
224						
	ING AND NARRATIVE DESCR					
Include import	ant landmarks and other features of ir	nterest fo	or site evaluation ar	nd a narrative description of the	ie stream's lo	cation
FLOW -	See Stream Assessme	ent F	'orm			
I LOVY	S5-S219c for site t	opog	raphic map	,		
	aerial photograph,	and	resource p	hotographs		

Save as pdf

Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Stream
Unnamed Trib. Payne Hollow

Quarter: NW
Range: R1W
Watershed: 05120202010

Channelized/Type:No/NaturalStream Type:EphemeralEvaluation Type:HHEI

Evaluation Score: 29 Legal Drain (Y/N): N

UTME: 1778019 ft **UTMN**: 14274685 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.2 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Gravel/sand

Stream S5-S220a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	163	0.01	1.54	
5	162	0.01	1.49	
6	0	0.00	0.26	
7	0	0.00	0.00	
8	0	0.00	0.18	
RPA 8	0	0.00	0.03	

Description of Potential Impact:

Impacts to S5-S220a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand in the headwaters of this stream, where Alternatives 4 and 5 cross this stream. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S220a are on the second page of this form.



Photograph Taken Upstream



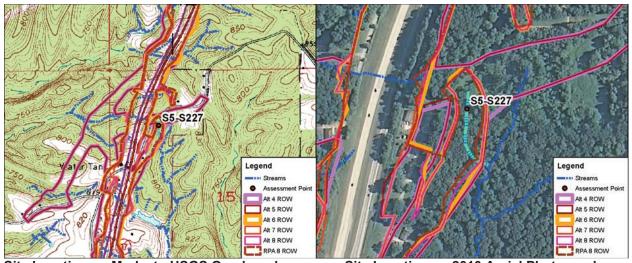
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S220a RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.30677 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51353) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
BEDROCK [16 pt]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0%	19
SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] 0%	
Total of Percentages of 10.00% (A) Substrate Percentage Check 100%	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 2	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
	5
COMMENTS OHW - 1.2' / 0.5' AVERAGE BANKFULL WIDTH (meters): 1.00	5
	5
AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{River River Left (L) and Right (R) as looking downstream \$\frac{1}{2}River River	5
COMMENTS OHW - 1.2' / 0.5' AVERAGE BANKFULL WIDTH (meters): 1.00 This information <u>must</u> also be completed	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	5
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Department of the process	op -
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.00 AVERAGE BANKFULL WIDTH (pers): 1.00 AVERAGE BANKFULL WIDTH (pers): 1.00 AVERAGE BANKFULL WIDTH (pers): 1.00 AVERAGE BANKFUL WIDTH (pers): 1.00 AVERAGE BANKFULL WIDTH (pers): AVERAGE BANKFULL WIDTH (p	op -
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crown None Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	op -

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S220a
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Payne Hollow Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LO	OCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream	Order _
County: Monroe Township / City: Washington	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): N Date of last precipitation: 05/10/06 Quantity: 0.89	
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 15%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:	
Additional comments/description of politition impacts.	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be la ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Market State (Y/N) Fish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Comments Regarding Biology:	inual)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed in the stream of the strea	•
See Stream Assessment Form S5-S220a for site topographic map, aerial photograph, and resource photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Stream
Unnamed Trib. Payne Hollow

Quarter:NWRange:R1WWatershed:05120202010Channelized/Type:No/Natural

Stream Type: Ephemeral Evaluation Type: HHEI Evaluation Score: 17

Legal Drain (Y/N): N

UTME: 1777725 ft **UTMN**: 14274549 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.0 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: Sand/silt

Stream S5-S227 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	413	0.03	1.90
5	416	0.03	1.89
6	401	0.03	1.62
7	0	0.00	0.00
8	399	0.03	1.62
RPA 8	375	0.03	1.42

Description of Potential Impact:

Impacts to S5-S227 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand and silt. There is a wide riparian corridor where the Alternatives cross this creek. The floodplain consists primarily of immature forest on both banks of the stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S227 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



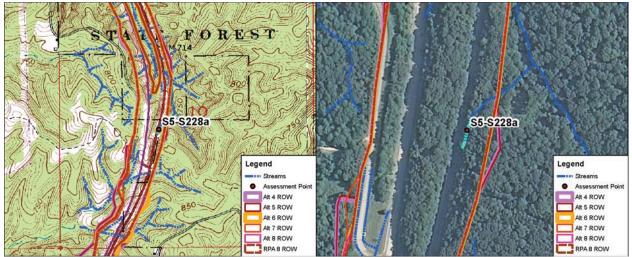
Primary Headwater Habitat Evaluation Form

17

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S227 DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. **39.30640** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.51458) (Natural-Class I) DATE 10/18/11 DEW/KSS SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 30% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% Substrate 10% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 12 60% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: 3 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' AVERAGE BANKFULL WIDTH (meters): 0.90 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS Power Lines FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Payne Hollow Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream _
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25
Photograph Information:
Elevated Turbidity? (Y/N): Canopy (% open):25%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form
S5-S227 for site topographic map,
aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SW
Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Type: HHEI
Evaluation Score: 17

Legal Drain (Y/N): N

UTME: 1778748 ft **UTMN**: 14278163 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.6 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area:	0.01 sa n

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S228a– Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	162	0.01	0.61
5	162	0.01	0.61
6	162	0.01	0.61
7	162	0.01	0.61
8	162	0.01	0.61
RPA 8	162	0.01	0.61

Description of Potential Impact:

Impacts to S5-S228a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with the left bank of this artificial channel. The floodplain consists of INDOT ROW on the left bank and mature forest on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S228a are on the second page of this form.



Photograph Taken Upstream



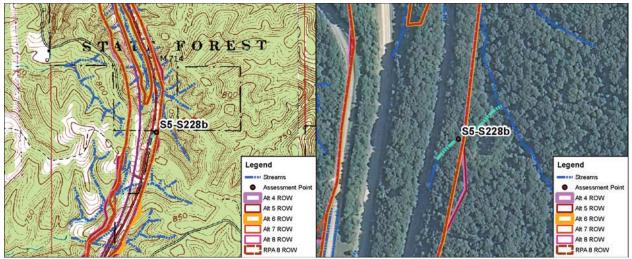
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S228a RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 160 LAT. 39.31631 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51089) (Concrete Gutter-Modified Class	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] 0% ☐ MUCK [0 pts] 0% ☐ SAND (<2 mm) [6 pts]	7
Title (B)	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	_
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 1	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] < 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 1.6'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.50	5
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
☐ Wide >10m ☐ Mature Forest, Wetland ☐ Conservation Tillage ☐ Moderate 5-10m ☐ Immature Forest, Shrub or Old ☐ Urban or Industrial	
Field — Open Pasture Pow Cro	nn.
Narrow <5m Residential, Park, New Field D	P
✓ None	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	_
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0	
None 1.0 2.0 3.0 >3 1.5 2.5	
✓ None ☐ 1.0 ☐ 2.0 ☐ 3.0	10 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Complete	S5-S228a
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes,	
	,
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERS	SHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil M	lap Page: NRCS Soil Map Stream Order
County: Monroe Township / City: W	ashington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 04/24/12	Quantity: 0.15
Photograph Information:	
Elevated Turbidity? (Y/N):N Canopy (% open):65%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. o	r id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.	J.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain	1:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
N	tional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the	
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N	N Voucher? (Y/N) N
	ebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREA	M REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation	on and a narrative description of the stream's location
See Stream Assessment Form	
S5-S228a for site topographic map	ρ,
aerial photograph, and resource	





Site Location on 2010 Aerial Photograph

Aquatic Resource:StreamUSGS QStream Name:Unnamed Trib. Payne HollowSection:Quarter:SWTownshiRange:R1WIDEM 30

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 40

Legal Drain (Y/N):

UTME: 1778879 ft **UTMN**: 14278329 ft

Ν

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 3.0 feet OHWM Depth: 0.5 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi Gravel/sand **Predominant Sub:**

Stream S5-S228b – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	187	0.01	0.59
5	190	0.01	0.62
6	190	0.01	0.58
7	190	0.01	0.58
8	190	0.01	0.58
RPA 8	190	0.01	0.58

Description of Potential Impact:

Impacts to S5-S228b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor along both banks of this stream. The floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S228b are on the second page of this form.



Photograph Taken Upstream



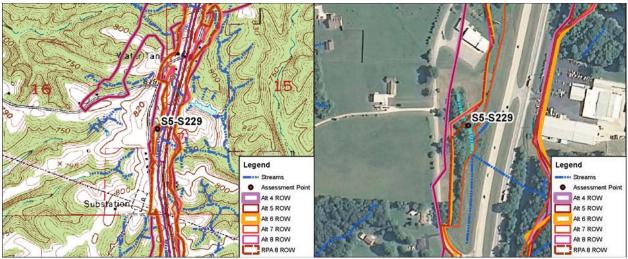
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S228b RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31677 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51042) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	45
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 6	
C PANK FILL MIDTH (M	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankfull Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide >10m Moderate 5-10m Moderate 5-10m Noderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m Noderate 5-10m Noderate 5-10m Noderate 5-10m Plood Plain Quality Noderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermitten)	Width Max=30 5
> 4.0 meters (> 13') [30 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Most Predominant per Bank) RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Floodplain Quality Floodplain Quality Wide >10 m Wide >10	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 13') [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY I R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.5 1.5 1.5 1.5 1.5 1.5 1.5	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOT	Width Max=30 5

ADDITIONAL STREAM INFORMA	ATION (This Information Must Also be Completed):	<u>5</u> 5-5220D
QHEI PERFORMED? -	Yes ✓ No QHEI Score (If Yes, A	ttach Completed QHEI Form)
DOWNSTREAM DESIGNMENT OF THE PROPERTY OF THE P	SNATED USE(S)	Distance from Evaluated Stream Distance from Evaluated Stream
EWH Name:		Distance from Evaluated Stream
MAPPING: ATTACH CO	DPIES OF MAPS, INCLUDING THE ENTIRE WATERSH	ED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modes	sto NRCS Soil Map	Page: NRCS Soil Map Stream Order
County: Monroe	Township / City: Was	hington
MISCELLANEOUS		
Base Flow Conditions? (Y/N):_Y	Date of last precipitation: 10/13/11	Quantity: 0.25
Photograph Information:		
Elevated Turbidity? (Y/N): _ N	Canopy (% open): 0%	
Were samples collected for water	chemistry? (Y/N): _N (Note lab sample no. or id	d. and attach results) Lab Number:
Field Measures: Temp (°C)	Dissolved Oxygen (mg/l)pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representati	ive of the stream (Y/N) If not, please explain:_	
Additional comments/description of	of pollution impacts:	
BIOTIC EVALUATION		
Performed? (Y/N): N (If	Yes, Record all observations. Voucher collections option number. Include appropriate field data sheets from the F	
Fish Observed? (Y/N) Vo Frogs or Tadpoles Observed? (Y/I	oucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinverteb	voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:		
DRAWING AND	NARRATIVE DESCRIPTION OF STREAM	REACH (This <u>must</u> be completed):
Include important landmar	ks and other features of interest for site evaluation	and a narrative description of the stream's location
FLOW See St	tream Assessment Form	
S5-S22	28b for site topographic ma	ap,
aeria	l photograph, and resource	photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Payne Hollow

Quarter: SE
Range: R1W
Watershed: 05120202010

Channelized/Type: No/Natural Stream Type: Ephemeral HHEI

Evaluation Score: 33 Legal Drain (Y/N): N

UTME: 1776517 ft **UTMN**: 14221749 ft

USGS Quadrangle:	Modesto
Section:	16
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.3 feet
OHWM Depth:	0.1 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.02 sq m

Watershed Area: 0.02 sq mi Predominant Sub: gravel/clay

	Stream S5	-S229 – Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	329	0.01	0.45
5	329	0.01	0.45
6	214	0.01	0.25
7	0	0.00	0.01
8	213	0.01	0.24
RPA 8	177	0.01	0.16

Description of Potential Impact:

Impacts to S5-S229 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel-overlain clay. There is a moderately-wide riparian corridor on this headwater stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S229 are on the second page of this form.



Photograph Taken Upstream



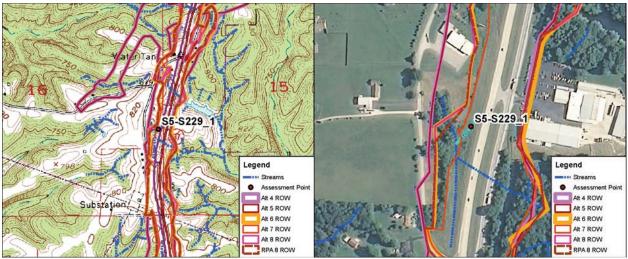
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S229 RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29990 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers (Long: -86.51889) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 25%	Points
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts] O%	Substrat
COBBLE (65-256 mm) [12 pts] 15% CLAY or HARDPAN [0 pt] 29%	Max = 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	13
Total of Percentages of 45 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	"
	<u></u>
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 7	
3 RANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one hox):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Narrow <5m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.0 m (<=3' 3") [5 pts] This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Whote > 1.00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 RIPARIAN WIDTH (meters): RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 This information must also be completed RIPARIAN WIDTH (meters): I .00 RIPARI	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (Width Max=30 5

ADDITIONAL STREAM INF	ORMATION (This Information Must Also	be Completed):		55-5229
QHEI PERFORMI	ED? - Yes 🗸 No QHEI Score	(If Yes, Attac	ch Completed QHEI Form)
DOWNSTREAM I WWH Name: Payne Ho CWH Name: _ EWH Name:	DESIGNATED USE(S)		_ Distance from Evaluate Distance from Evaluate Distance from Evaluate	d Stream _
MAPPING: ATTA	CH COPIES OF MAPS, INCLUDING THE <u>E</u>	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name:		NRCS Soil Map Pa		Map Stream Order
County: Monroe		ship / City: Washin	gton	
MISCELLANEOU	S			
Base Flow Conditions? (Y/N	l):_N Date of last precipitation:_	05/10/06	Quantity: 0.89	
Photograph Information:				
Elevated Turbidity? (Y/N): _	N Canopy (% open): 75%	%		
Were samples collected for	water chemistry? (Y/N): N (Note lat	o sample no. or id. a	nd attach results) Lab Nu	mber:
Field Measures: Temp (°		pH (S.U.)	Conductivity (µmh	nos/cm)
	sentative of the stream (Y/N) Y If not,	please explain:		
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Observed Comments Regarding Biolog	(If Yes, Record all observations. Voucher ID number. Include appropriate field data Voucher? (Y/N) Salamanders Cd? (Y/N) Voucher? (Y/N) Aqua	·	nary Headwater Habitat As Voucher? (Y/N)	
	AND NARRATIVE DESCRIPTION admarks and other features of interest fo		-	-
	e Stream Assessment Fo	orm		
	S229 for site topogra rial photograph, and n	_	notographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Payne Hollow

Quarter: SE Range: R1W Watershed: 05120

Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1776614 ft **UTMN**: 14272184 ft

USGS Quadrangle:	Modesto
Section:	16
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	0.9 feet
OHWM Depth:	0.1 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area:	0.01 cam

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

	Stream S5-S229	1 – Modified Class I PHWF	l
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	199	0.01	0.00
5	199	0.01	0.00
6	199	0.01	0.00
7	158	0.01	0.00
8	199	0.01	0.00
RPA 8	199	0.01	0.00

Description of Potential Impact:

Impacts to S5-S229_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW adjacent to both banks. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S229_1 are on the second page of this form.



Photograph Taken Upstream

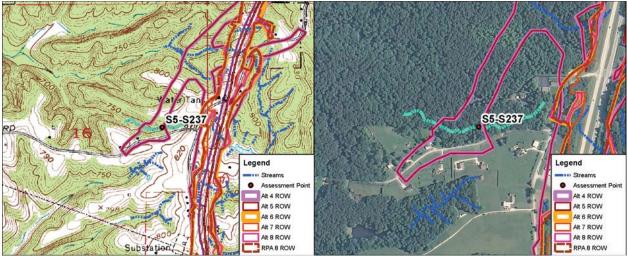


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S229_1 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.29992 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51855) (Concrete Gutter-Modified Class	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL □ NONE / NATURAL CHANNEL □ RECOVERED □ RECOVERING □ RECENT OR NO RECOMMODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metric Points
BLDR SLABS [16 pts]	1 Ollits
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 4
COBBLE (65-256 mm) [12 pts]	
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] O% ARTIFICIAL [3 pts] 100%	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 0.9'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.27	5
AVERAGE BANKFULL WIDTH (Illeters).	
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m	
Field Field Urban or industrial	_
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	þ
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	
0.5 1.5 2.5 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	10.4%
	10 11)





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: NE Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 24

Evaluation Score: 24
Legal Drain (Y/N): N

UTME: 1775767 ft **UTMN**: 14273118 ft

USGS Quadrangle: Section:	Modesto 16
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.5 feet
OHWM Depth:	0.6 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.03 sq m

Watershed Area: 0.03 sq mi Predominant Sub: Clay/sand

	Stream S5	-S237 – Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	528	0.04	2.31
5	550	0.04	2.33
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S237 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate is clay and sand. There is a moderately-wide riparian corridor on the left bank and a wide riparian buffer on the right where Alternatives 4 and 5 cross this stream. The floodplain consists primarily of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S237 are on the second page of this form.



Photograph Taken Upstream



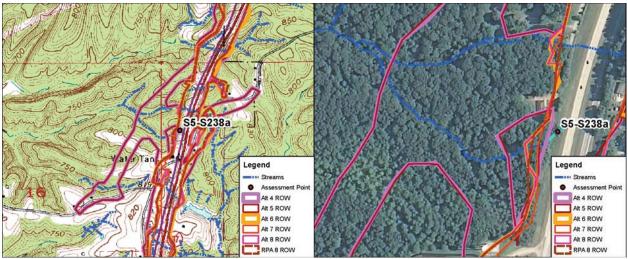
Photograph Taken Downstream



	THIEI GOOTE (Sum of metrics 1, 2, 3) .	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER_S	S5-S237 RIVER BASIN White River DRAINAGE AREA (mi²) 0.03	3
LENGTH OF STREAM REACH (ft) 200	LAT. 39.30250 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KS		
NOTE: Complete All Items On This Forn	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct	tions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOV	'ERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
, , , , , , , , , , , , , , , , , , , ,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
		Metri Point
BLDR SLABS [16 pts]	076 SIET [5 pt]	OIIIL
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% Significant Si	Substra
COBBLE (65-256 mm) [12 pts]		Max = 4
GRAVEL (2-64 mm) [9 pts]	0% MUCK [0 pts] 0%	
SAND (<2 mm) [6 pts]	30% ARTIFICIAL [3 pts] 0%	9
T. (C)	Culpatrata Parantaga	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
- ,		ool Dep Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	viax – S
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the		Bankfu
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW = 3.5'/0.6'	AVEDAGE DANKELLI MIDTIL () 110	4 5
COMMENTS	AVERAGE BANKFULL WIDTH (meters): 1.10	15
	This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH	PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
₩ide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial	
	Field Open Pasture Row Crop	
Narrow <5m	Residential, Park, New Field	
None	Fenced Pasture Mining or Construction	
COMMENTS		
FLOW REGIME (At Time of Eva.	aluation) (Check ONLY one box):	
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated poo	ols (Interstitial) Dry channel, no water (Ephemeral)	
GOIVIIVILIA 13_		
SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check ONLY one box):	
None 0.5	1.0 2.0 3.0	
None 0.5	1.0 1.5 2.0 3.0 >3	
✓ 0.5 □ STREAM GRADIENT ESTIMATE	1.5	
✓ 0.5)

ADDITIONAL STREA	AM INFORMATION (This Information Must Als	o be Completed):		S5-5237
QHEI PER	FORMED? - Yes / No QHEI Score	(If Yes, Atta	ch Completed QHEI Form)	
DOWNSTE WWH Name: Inc CWH Name: EWH Name:	REAM DESIGNATED USE(S)		_ Distance from Evaluated Stream _ Distance from Evaluated Stream _ Distance from Evaluated Stream	
MAPPING	ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED	AREA. CLEARLY MARK THE SIT	E LOCATION
USGS Quadrangle N	ame: Modesto	NRCS Soil Map P	age: NRCS Soil Map Stre	eam Order
County: Monroe	Town	ship / City: Washir	ngton	
MISCELLA	NEOUS			
Base Flow Conditions	s? (Y/N):_Y Date of last precipitation:	10/13/11	Quantity: 0.25	
Photograph Informati	on:			
Elevated Turbidity? (Y/N): N Canopy (% open): 0%	/ o		
Were samples collec	ted for water chemistry? (Y/N): N (Note la	b sample no. or id. a	and attach results) Lab Number:	
		pH (S.U.)	Conductivity (µmhos/cm)	
		; please explain:		
	bserved? (Y/N) N Voucher? (Y/N) N Aqua	ta sheets from the Prince Dbserved? (Y/N)		: Manual)
	ING AND NARRATIVE DESCRIPTION ant landmarks and other features of interest for			-
	See Stream Assessment Fo			
12011	S5-S237 for site topogramerial photograph, and re	_	otographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010
Channelized/Type: Yes/ Concrete Gutter
Stream Type: Ephemeral

Evaluation Score: 12 Legal Drain (Y/N): N

Evaluation Type:

UTME: 1777095 ft **UTMN**: 14274284 ft

HHEI

USGS Quadrangle: Modesto Section: 15 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.02 sq mi **Predominant Sub:** Artificial

	Stream S5-S238	a – Modified Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	142	0.01	0.13
5	142	0.01	0.22
6	142	0.01	0.23
7	142	0.01	0.23
8	142	0.01	0.22
RPA 8	142	0.01	0.22

Description of Potential Impact:

Impacts to S5-S238a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The concrete gutter is located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S238a are on the second page of this form.



Photograph Taken Upstream



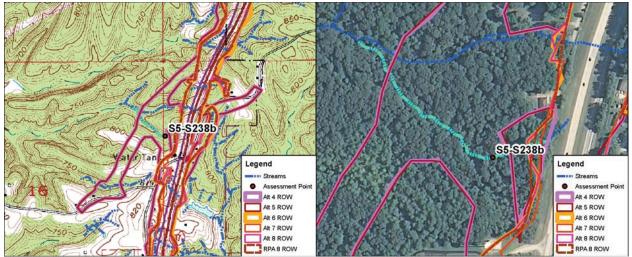
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S238a RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 140 LAT. 39.30568 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51681) (Concrete Gutter-Modified Classification)	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	""
	De el Des
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	I —
	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Bankful Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 3.0 m - 4.0 m (> 9 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
S 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] S 1.0 m (<=3' 3") [5 pts]	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m (<=3' 3") [5 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m (<=3' 3") [5 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Flow Resident (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN WIDTH (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Open Pasture, Row C Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): O.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
Sinuosity (Number of bends per 61 m (200 ft) of channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral) Sinuosity (Number of bends per 61 m (200 ft) of channel) Sinuosity (Number of bends per 61 m (200 ft) of channel) Sinuosity (Number of bends per 61 m (200 ft) of channel) AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (met	Width Max=30 5

ADDITIONAL STREAM	INFORMATION (This Information N	lust Also be Completed):		S5-S238a
QHEI PERFO	RMED? - Yes 🗸 No QHEI Sco	ore (If Yes, Atta	ach Completed QHEI Forr	n)
DOWNSTREA WWH Name: India CWH Name: EWH Name:	AM DESIGNATED USE(S) n Creek		Distance from Evaluate Distance from Evaluate Distance from Evaluate	ed Stream
MAPPING: A	TTACH COPIES OF MAPS, INCLUDIN	G THE <u>ENTIRE</u> WATERSHE	DAREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Nam	e:_Modesto	NRCS Soil Map F	Page: NRCS Soi	l Map Stream Order
County: Monroe		Township / City: Washi	ngton	
Field Measures: Ten	(Y/N):_Y Date of last precipita	100% (Note lab sample no. or id.	Quantity: 0.15 and attach results) Lab Nu Conductivity (µm	umber:
BIOTIC EVAL Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Obsection Comments Regarding B	(If Yes, Record all observations ID number. Include appropriate Voucher? (Y/N) Salam Voucher? (Y/N) Voucher? (Y/N) Niology:	anders Observed? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N) N	Voucher? (Y/N) N
Include importan	G AND NARRATIVE DESCRI tlandmarks and other features of in ee Stream Assessmer 5-S238a for site to erial photograph, a	terest for site evaluation and the form becomes the pographic map	nd a narrative description	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Secret

Evaluation Score: 45
Legal Drain (Y/N): N

Alternatives

<u>4</u> 5

6

7

8

RPA8

UTME: 1776744 ft **UTMN**: 14274134 ft

Length of Impact (feet)

879

913

121

57

122

88

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	5.5 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.02 sq mi
Predominant Sub:	Sand/gravel

38b – Class II PHWH	
Area of Impact (acres)	Riparian Impact (acres)
0.11	3.67
0.12	3.77
0.02	0.43
0.01	0.21
0.02	0.43

0.36

Description of Potential Impact:

Impacts to S5-S238b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand, gravel, and silt. There is a wide riparian corridor where the Alternatives cross this creek. The floodplain consists primarily of mature forest on both banks of the stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S238b are on the second page of this form.

0.01

Stream S5-S238b -



Photograph Taken Upstream



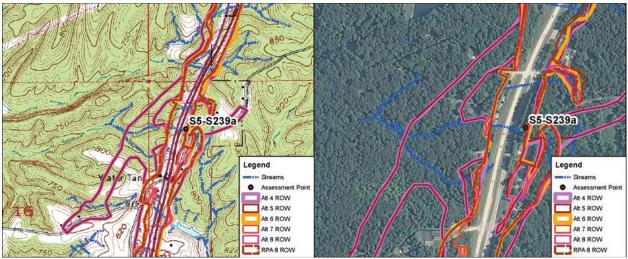
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S238b RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.30528 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51805) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to This Form - Refer	structions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	ECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	. DUEL
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 5% SILT [3 pt] 15%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] MUCK [0 pts]	20
SAND (<2 mm) [6 pts] 45% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 30 certifileters [20 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	, 5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.70	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.70	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee) Moist Channel, isolated pools, no flow (Intermittee) Moist Channel, isolated pools, no flow (Intermittee)	Width Max=30 20 Crop
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitted Dry channel, no water (Ephemeral))	Width Max=30 20 Crop
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (<=3' 3") [5 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5-10m Narrow <5m Narrow <5m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS X 1.0 m (<=3' 3") [5 pts] X 1.0 m (<=3'	Width Max=30 20 Crop
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m None Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1	Width Max=30 20 Crop
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30 20 Crop
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.	Width Max=30 20 Crop on ant)

ADDITIONAL STREAM	M INFORMATION (This Information Must Also	be Completed):	\$5-\$238
QHEI PERF	ORMED? - Yes / No QHEI Score	(If Yes, Attach C	Completed QHEI Form)
DOWNSTRE WWH Name: India CWH Name: EWH Name:	EAM DESIGNATED USE(S) an Creek	_ Di	istance from Evaluated Streamistance from Evaluated Streamistance from Evaluated Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE <u>EI</u>	ITIRE WATERSHED AR	EA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map Page:	NRCS Soil Map Stream Order
County: Monroe	Towns	ship / City: Washingto	on
MISCELLAN		40/42/44	0.25
Base Flow Conditions?	? (Y/N):_ Date of last precipitation:_	10/13/11	Quantity: 0.25
Photograph Informatio	N (a)		
Elevated Turbidity? (Y	/N): Canopy (% open):	<u>/6</u>	
Were samples collecte	ed for water chemistry? (Y/N): N (Note lal	sample no. or id. and a	attach results) Lab Number:
	mp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach	representative of the stream (Y/N) Y If not	please explain:	
Additional comments/o	description of pollution impacts:		
BIOTIC EV	ALUATION		
Performed? (Y/N): _	(If Yes, Record all observations. Vouche		OTE: all voucher samples must be labeled with the so
Fish Observed? (Y/N) Frogs or Tadpoles Obs	served? (Y/N) N Voucher? (Y/N) N Aqua	bserved? (Y/N) N tic Macroinvertebrates C	Voucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding	Biology:		
DRAWI	NG AND NARRATIVE DESCRIPTION	OF STREAM REA	CH (This <u>must</u> be completed):
Include importa	nt landmarks and other features of interest fo	r site evaluation and a	narrative description of the stream's location
•	Coo Change Transmit F	0.7000	
FLOW	See Stream Assessment F S5-S238b for site topog		
	aerial photograph, and		otographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 17

Evaluation Score: 17 Legal Drain (Y/N): N

UTME: 1777477 ft **UTMN**: 14274710 ft

USGS Quadrangle: Modesto Section: 15 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi

Watershed Area: 0.01 sq mi Predominant Sub: Sand

	Stream S5-	S239a –Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	121	0.01	0.67
5	121	0.01	0.68
6	121	0.01	0.49
7	100	0.01	0.39
8	104	0.01	0.42
RPA 8	44	0.01	0.32

Description of Potential Impact:

Impacts to S5-S239a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominate substrate consists of sand. There is a narrow riparian corridor where the Alternatives cross this creek. The floodplain consists primarily of old fields adjacent to both banks of the stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S239a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



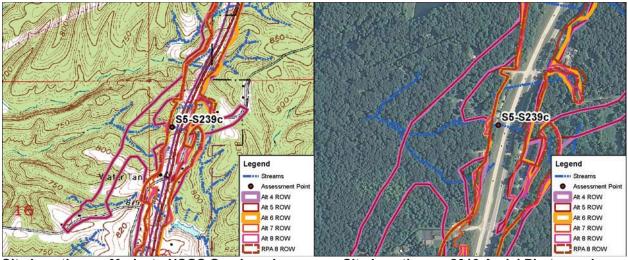
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S239a RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 120 LAT. 39.30685 LONG. RIVER CODE RIVER MILE	
DATE 04/24/12 SCORER KSS COMMENTS (Long: -86.51545) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] O% LEAF PACK/WOODY DEBRIS [3 pts] 30% 20%	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts]	12
SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B) Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depti
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
→ NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	
	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2' / 0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2' / 0.2' AVERAGE BANKFULL WIDTH (meters): 0.40 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2' / 0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH RIPARIAN WIDTH L R (Most Predominant per Bank) L R	Max=30
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Mature Forest, Wetland Moderate 5-10m None Riparian Pow Cree Moderate 5-10m None Riparian Pow Cree Moderate Source Signal (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts] ✓ 1.0 m (<=3' 3") [5 pts]	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Wide >10m Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): \$\[\leq \text{1.0 m (<=3' 3") [5 pts]} \] AVERAGE BANKFULL WIDTH (meters): 0.40 AVERAGE BANKFULL WIDTH (meters): 0.40 L R (Most Predominant per Left (L) and Right (R) as looking downstream \(\frac{1}{2} \) RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cro	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Mature Forest, Wetland Moderate 5-10m None Riparium Pow Cree Moderate 5-10m None Riparium Pow Cree Moderate Sone Riparium Pow Cree None Riparium Pow Cree Since 1.0 m (<=3' 3") [5 pts] Z 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.40 One Riparium Pow Cree Moderate Since 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.40 L R (Nost Predominant per Bank) L R (Most Predominant per Bank) Image I	Max=30
S 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] S 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crow Comments None Residential, Park, New Field None Comments Co	5
None None None Servation Tillage Servation Tillage None Comments None Servation Tillage None Comments Servation Tillage None Comments Servation Tillage Servation Tillage None Servation Tillage Servation Tillage None Servation (Check ONLY one box):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH	5
Salo m - 4.0 m (> 9' 7" - 13') [25 pts] Salo m (<=3' 3") [5 pts]	5
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): AVERAGE BANKFULL WIDTH (meters): 0.40 0.4	5
Sinuosity (Number of bends per 61 m (200 ft) of channel) Common of the process of the proces	Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Indian Creek Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: Quantity: 0.00
Photograph Information:
Elevated Turbidity? (Y/N): Y Canopy (% open): 60%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Y Voucher? (Y/
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S239a for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 70

Evaluation Score: 70
Legal Drain (Y/N): N

UTME: 1777185 ft **UTMN**: 14274732 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	5.5 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.02 sq mi
Predominant Sub:	Gravel/boulder

Stream S5-S239c -Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	17	0.01	0.00
5	17	0.01	0.00
6	17	0.01	0.00
7	17	0.01	0.00
8	17	0.01	0.00
RPA 8	17	0.01	0.00

Description of Potential Impact:

Impacts to S5-S239c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists predominantly of gravel and boulders. There is no riparian buffer associated with this stream. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S239c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



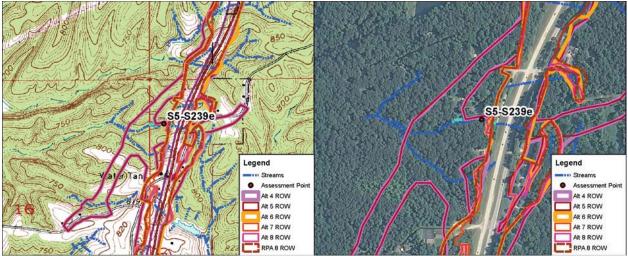
ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S239C RIVER BASIN White River DRAINAGE AREA (mi²) 0	.02
LENGTH OF STREAM REACH (ft) 15 LAT. 39.30691 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51648) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVE	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] DW LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts] 15% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 5% ARTIFICIAL [3 pts] 0%	30
Ortito (42 min) [o pio]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 90%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 25 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	25
✓ > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 15	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (-3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 4.0'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.22	
COMMENTS AVERAGE BANKFOLL WIDTH (INCLES). 1.22	15
COMMENTS AVERAGE BANKFOLL WIDTH (Ineters).	15
This information must also be completed	15
	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Field	
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣ NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ♣ RipARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank)	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY % NOTE: River Left (L) and Right (R) as looking downstream % RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Immature Forest, Shrub or Old	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY % NOTE: River Left (L) and Right (R) as looking downstream % RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Immature Forest, Shrub or Old	op

ADDITIONAL STREAM INFORMATION (This Information Must Also be Complete Compl	S5-S239C leted):
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Y	Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Indian Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WAT	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS So	oil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City:_	Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/1	1 Quantity: 0.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 50%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no	o. or id. and attach results) Lab Number:
	(S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please exp	olain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field data sheets from Voucher? (Y/N) N Salamanders Observed? (s optional. NOTE: all voucher samples must be labeled with the site m the Primary Headwater Habitat Assessment Manual) Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STR Include important landmarks and other features of interest for site evalu	
See Stream Assessment Form S5-S239c for site topographic aerial photograph, and resour	_

Save as pdf

Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010 Channelized/Type: No/Natural **Ephemeral Stream Type: Evaluation Type:** HHEI

Evaluation Score: 60 Legal Drain (Y/N): Ν

UTME: 1777001 ft **UTMN:** 14274774 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	4.4 feet
OHWM Depth:	0.4 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.02 sq mi
Prodominant Sub	Gravallean

Predominant Sub: Gravel/sand

Stream S5-S239e –Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	368	0.04	0.51
5	371	0.04	0.51
6	87	0.01	0.22
7	53	0.01	0.17
8	100	0.01	0.23
RPA 8	35	0.01	0.09

Description of Potential Impact:

Impacts to S5-S239e for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor consisting of mature forest on the right bank and a moderately-wide riparian corridor consisting of residential land along the left floodplain. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S239e are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



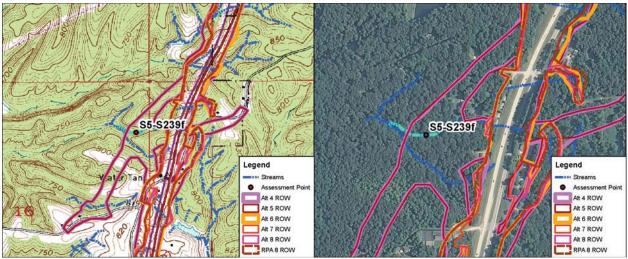
ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S239e RIVER BASIN White River DRAINAGE AREA (mi²) 0.02 LENGTH OF STREAM REACH (ft) 200 LAT. 39.30703 LONG. RIVER CODE RIVER MILE	
· / 	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51713) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	ons
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER MODIFICATIONS:	RY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	JUEI
TYPE PERCENT TYPE PERCENT N	HHEI letric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	oints
LILL BEDROCK 116 btl V% LILL FINE DETRITUS 13 btsl 370	ıbstrate
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	ax = 40
GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0% ARTIFICIAL [3 pts] 0%	20
Table (Daniel Control of December 2)	
Bldr Slabs, Boulder, Cobble, Bedrock Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
	ol Depth ax = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	ax – 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
	23
COMMENTS MAXIMUM POOL DEPTH (centimeters): 11	
()	ankfull Width
=	lax=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	_
	15
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.4' / 0.4' AVERAGE BANKFULL WIDTH (meters): 1.34	_
This information must also be completed RIPARIAN ZONE AND FLOODP LAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.34 This information function must also be completed RIPARIAN ZONE AND FLOODP LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream	_
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.4' / 0.4' AVERAGE BANKFULL WIDTH (meters): 1.34 This information must also be completed	_
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR (Conservation Tillage	_
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 1.34 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	_
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH AVERAGE BANKFULL WIDTH (meters): 1.34 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Urban or Industrial	_
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) Wide >10m Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5m AVERAGE BANKFULL WIDTH (meters): 1.34 L R (Not Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Open Pasture, Row Crop	_
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Notes (Most Predominant per Bank) RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None Residential, Park, New Field FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS MAVERAGE BANKFULL WIDTH (meters): 1.34 AVERAGE	_
COMMENTS OHW - 4.4' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY *NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Narrow <5m None Residential, Park, New Field Open Pasture, Row Crop Mining or Construction COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 AVERAGE BANKFULL WIDTH (meters): 1.34 AVERAGE BANKFULL WIDTH (L) AND	_

ADDITIONAL STREAM INFO	ORMATION (This Information Must Also be Completed):	55-52396
QHEI PERFORME	ED? - Yes 🗸 No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM D	DESIGNATED USE(S) eek	_ Distance from Evaluated Stream
CWH Name: _		_ Distance from Evaluated Stream
EWH Name:		Distance from Evaluated Stream
	CH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	O AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: M	Modesto NRCS Soil Map P	Page: 8 NRCS Soil Map Stream Order 1
County: Monroe	Township / City: Washin	ngton
MISCELLANEOUS		
Base Flow Conditions? (Y/N)): N Date of last precipitation: 05/10/06	Quantity: 0.89
Photograph Information:	07 Upstream / 195 Downstream / 196 Right bank / 197 Left	bank
Elevated Turbidity? (Y/N): _	N Canopy (% open): 20%	
Were samples collected for v	water chemistry? (Y/N): N (Note lab sample no. or id. a	and attach results) Lab Number:
Field Measures: Temp (°C	C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach repres	sentative of the stream (Y/N) Y If not, please explain:	
Additional comments/descrip	ption of pollution impacts:	
BIOTIC EVALUAT	TION	
Performed? (Y/N): N	(If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Pri	·
Fish Observed? (Y/N) Frogs or Tadpoles Observed	Voucher? (Y/N) Salamanders Observed? (Y/N) 4? (Y/N) Aquatic Macroinvertebrat	Voucher? (Y/N) tes Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biolog	ду:	
DRAWING A	AND NARRATIVE DESCRIPTION OF STREAM R	REACH (This <u>must</u> be completed):
Include important land	dmarks and other features of interest for site evaluation an	nd a narrative description of the stream's location
See	e Stream Assessment Form	
FLOW S5-	-S239e for site topographic map	ο,
	rial photograph, and resource p	

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Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Indian Ck

Quarter: ΝE Range: R1W

Watershed: 05120202010 Channelized/Type: No/Natural Intermittent **Stream Type: Evaluation Type:** HHEI

Evaluation Score: 60 Legal Drain (Y/N): Ν

UTME: 1776430 ft **UTMN:** 14274633 ft

USGS Quadrangle: Modesto Section: 16 Township: T10N IDEM 303(d) List: N/A OHWM Width: 4.4 feet **OHWM Depth:** 0.8 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.02 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S239f – Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	497	0.05	2.26
5	494	0.05	2.25
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S239f for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor consisting of mature forest on both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S239f are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

UU

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S239f RIVER BASIN White River DRAINAGE AREA (mi²) 0.	02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.30665 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51915) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	uuei
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
✓ GRAVEL (2-64 mm) [9 pts] 50% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	20
Table (Building) [e pte]	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 11	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Max=30
COMMENTS OHW - 4.4' / 0.8' AVERAGE BANKFULL WIDTH (meters): 1.40	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	р
None Fenced Pasture Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 2.0 3.0 3.0 5 3.0 5.3	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	
	0 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):		33-32391
QHEI PERFORMED? - Yes	No QHEI Score(If Yes, Atta	ach Completed QHEI Form)	
DOWNSTREAM DESIGNATED WWH Name: Indian Creek CWH Name: EWH Name:	USE(S)	_ Distance from Evaluated _ Distance from Evaluated _ Distance from Evaluated \$	Stream _
	F MAPS, INCLUDING THE ENTIRE WATERSHED	_	
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream Order 1			
County: Monroe Township / City: Washington			
MISCELLANEOUS			
Base Flow Conditions? (Y/N):_N D	ate of last precipitation: 05/10/06	Quantity: 0.89]_
Photograph Information: 197 Upstream / 195 Downstream / 196 Right bank / 197 Left bank			
Elevated Turbidity? (Y/N): N	Canopy (% open): 20%		
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:			
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)			
Is the sampling reach representative of the	e stream (Y/N) Y If not, please explain:		
Additional comments/description of pollution impacts:			
BIOTIC EVALUATION			
` /	cord all observations. Voucher collections optional	·	
Fish Observed? (Y/N) Voucher? Frogs or Tadpoles Observed? (Y/N)	(Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrat	Voucher? (Y/N)	Voucher? (Y/N)
Comments Regarding Biology:	Addate Macioniveresiate	.es observeu: (1714)	vouerier: (1714)
DRAWING AND NARR	ATIVE DESCRIPTION OF STREAM R	REACH (This must be	completed):
	other features of interest for site evaluation an	·	•
See Stream	Assessment Form		
S5-S239f for site topographic map,			
aerial photograph, and resource photographs			

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